

AMERICAN RAILROAD JOURNAL. AND ADVOCATE OF INTERNAL IMPROVEMENTS.

PUBLISHED WEEKLY, AT No. 35 WALL STREET, NEW-YORK, AT THREE DOLLARS PER ANNUM, PAYABLE IN ADVANCE.

D. K. MINOR, EDITOR.]

SATURDAY, AUGUST 30, 1834.

[VOLUME III.-No. 34.

CONTENTS : New Locomotive Carriage; Ship Canal; The New-New Locomotive Carriage; Ship Canal; The Newark Railroal, &c. page 529 Allegany River; Internal Improvements. 530 Improved Apparatus for Measuring Land, &c.; Age of the World. 531 On the Location of Railroad Curvatures. 532 Mechanics Convention; Crops in Georgia, &c. 534 The Sailing Chariot; Stoves, Self-taught Mechanist; Sand of Pekin. 531 Philosophical Facts; Planariæ; Sugar an Antidote to the Poison of or from Copper. 535 Agricultare; &c. 535 Foreign Intelligence 536 Literary Notices. 538 Summary. 540

AMERICAN RAILROAD JOURNAL, &c.

NEW-YORK, AUGUST 30, 1834.

NEWARK RAILROAD .- We learn that in a few days this raffroad will be opened for public use from Newark to Jersey City,—an event which will be hailed with satisfaction by that portion of the travelling public who may have occasion to use it. The constant communication of Newark and the adjacent towns with New-York city, and the large amount of goods transported between these places, render the completion of this work of great importance and interest to the community. It cannot fail, we should think, of proving extensively useful to all concerned in travelling and transportation between this city and that portion of New-Jersey which it intersects; and it will doubtless participate in the patronage now so largely extended to the existing modes of conveyance between the places referred to. The sixth instalment on the stock is payable on the 10th of September.—[Daily Adver.] and interest to the community. It cannot fail,

NEW LOCOMOTIVE CARRIAGE -A very ingenious machine has been invented and made solely by Mr. Ackrill, of Boston. It is built to accommodate one person, who will, with great ease, be able to propel it at the rate of ten miles an hour. The principle on which it is constructed in antical ways and the state of the sta structed is entirely new, and may be applied to any purpose in machinery; it is anticipated it will introduce quite a new theory in me-

tion of said canal, "as a grand, important | and in use throughout the whole year. No improvement, by which the State of New-York will become a fair competitor with Pennsylvania and Canada for the travel and transportation of the Great West, and finally complete that chain of internal improvement which nature has so liberally commenced."

As Delegates are invited to the Convention from this city, it cannot be unsuitable to suggest some things in the consideration of our citizens, before the meeting takes place.

1. The professed object of this stupendous undertaking, as expressed in the notice, is, that this State may become a fair competitor with Pennsylvania and Canada, for the travel and transport of the great West. This, with respect to Pennsylvania at least, sounds strangely enough is there any competition. strangely enough. Is there any competition between that State and this, for the commerce of Lake Ontario? Will not the Oswego Canal, already opened, accommodate all the business of that Lake, at a far cheaper rate than so costly a work as that now proposed could possibly do it? Is Lake Ontario the point at which competition, either with Pennsylvania or Canada, for the travel and transport of the great West, is to be met? Is it at all probable, that any more travel from the West to this city would take the route in question, in con-sequence of a steamboat or ship canal being opened to Oswego? And as to the travel from this city to the West, is there any danger of its being drawn around through Canada? Or is it any-ways likely that the products of the West, after being subjected to the expense of transit on to Lake Ontario, will be diverted to the Hudson by a ship canal, in preference to the cheaper means of conveyance already provided?

2d. This project doubtless appears plausible to those who reside on the proposed route, and probably it seems to them to be the only alternative—the only "improvement" by which the State can secure the travel and transport of the great West; but to those at a distance, and especially in this city, it must a distance, fall far short of the object. It does not reach the point where this competition must begin, and where the route of travel and transport must be determined, viz. on the waters and southern shore of Lake Erie. Nor is it in the (From the New-York American.)

Mr. EDITOR,—In your paper of 20th inst., (see Railroad Journal, page 513.) a notice appears from the Chairman of the Committee appointed by the citizens of Utica, calling a Convention to meet in that place on the 11th September next, to consider the project of a ship canal from Lake Ontario to Utica, and thence to Albany, and the subject of petitioning the Legislature to undertake the construc-

enlargement or multiplication of canals from the upper waters of the Hudson to Lake Ontario, or Lake Erie, will answer the purpose, for they can be used only during a portion of each year. The travel and business of the west cannot wait on the rigor of our winters, and unless we provide other facilities than such as are rendered unavailable by frost, a fair competition with our neighbors will be impracticable.

3d. It surely behooves the citizens of this metropolis to consider how the travel and bu-siness of the Great West is hereafter, in the progress of a most active and far reaching competition on either side, to be drawn directly hither. While our enterprizing fellow-citizens at the North are contriving how to increase the facilities of communication between the western world and Albany during the summer months, it is time for us to consider how the obstacles of climate and distance may be obviated with respect to this city throughout the year. If they have the energy and cour-age to contemplate a ship canal of one hun-dred and fifty or two hundred miles in length, may we not venture to look somewhat seriously at the map, and consider the subject of the railway through the southern counties to Lake Erie, of the route of which a survey is now in progress? Is it not time to realize that the distance hence to the lake by this route is trifle greater than that from Albany to Buffalo, and that by a railway all that is wanting to us in respect to the present or future competition for the travel and transport of the western would be supplied? world would be supplied?

The writer is of opinion that facilities of cheap and rapid communication ought to be extended through every district of this State which is not already favored in that way; and if, after that, the projected ship canal is needed, let it by all means be constructed. But will any reasonable man say that the next effort of the State should be to add, on such a scale, to the advantages already so liberally extended to that route? Is it not reasonable that the interestand claims of other sections should, in their turn, be considered and fairly dealt with; and among them the vast and enduring interests of this city in the commerce of the West, which every one perceives will now be in a great measure lost to us, without a medium of com-munication which will serve for the winter as well as the summer months.

PEARL STREET.

A daily mail has been established between Trenton and Bordentown, to meet the great mail between New York and Philadelphia.

ALLEGANY RIVER .-- We copy from the Kittanning (Pa.) Gazette, the following very interesting article upon the Allegany River, a river which has been heretofore, and indeed is now, greatly undervalued. The time is not distant, however, when it will be duly appreciated, and profitably used.

In the present contest for the trade of the west, the Allegany River is an object of great and constantly increasing interest; and that it will ere long become an important avenue of trade, no one who watches the signs of the times will for one moment question. York has her eye upon it; for she well knows that unless she can reach the Ohio River by some more direct route than by way of Lake Erie and the Ohio Canal, she must give up the immense trade of that river to Pennsylvania. Her projected canal from Rochester to Olean may therefore be calculated on; and when that is accomplished, the Allegany will rise in the scale of importance to be second only to the Ohio itself.

Firmly persuaded of the truth of what we have here stated, we shall venture to offer to the world a more minute description of this

river than has yet been given.

Its source is in Potter county, Pa., from whence it flows in a north-western direction about forty miles, when it enters the state of New-York, at the south-east corner of Cattaraugus county, having in that distance re-ceived many tributaries, and become a large stream. About fifteen miles from where it crosses the state line, it receives Olean creek, a considerable stream from the north. Olean Olean or Hamilton village is situated at the mouth of Olean creek, and will doubtless become an important place. From Olean the course of the river is a little north of west, for about thirty miles, when it changes to south-west, and soon after re-enters Pennsylvania, at the north-east corner of Warren county. From thence its main direction continues the same until it receives French creek, one of its largest tributaries, from the north-west: it then changes to south-east, and so continues to the mouth of the Mahoning, where it again changes to south-west, which course it retains for the most part until it unites with the Monongahela at Pittsburg, and where it loses its name in that of the Ohio.

In its course it flows through the following counties: Potter, Pa., in which it rises, M'Kean, Pa., Cattaraugus, N. Y., through which it flows a distance but little short of fifty miles—Warren, Venango, Armstrong, and Allega-

warren, Venango, Armstrong,
ny, in Pennsylvania.

It receives in its course many large tributaries, the principal of which are—the Oswaya
creek, above Olean, the Olean, Tanungwant,
(or Tonnewanto,) Great Valley, and several
in Cattaraugus county; Kenjua, ConWarren county; others, in Cattaraugus county; Kenjua, Con-newango, and Brokenstraw, in Warren county; Tionesta, Oil creek, and French creek, in Venango county; Clarion river, or Toby's creek, between Venango and Armstrong; Mohulbuc-tetem, or Redbank creek, and Mahoning, in Armstrong county; and the Kiskiminetas river, between Armstrong and westmoretand.
All the streams here enumerated are navigable to a greater or less distance. No navigable stream enters the west side of the Allegany

The following are the distances from Pittsburg up, by the course of the river :

From Pittsburg to

thoras a su- ad worr flive as also	Miles.	Miles.
Kiskiminetas river,	29	29
Town of Kittanning,	11	43
Mahoning creek,	9	52
Redbank "	10	62
Clarion river, or Toby's creek,	21	83
French creek (town of Franklin	1) 32	115
Oil creek,	7	122
Tionesta creek,	18	140
Brokenstraw creek,	28	168

Connewango, (town of Warren,)	8		176
New-York line,	18		192
Great Valley creek,	27		221
Olean.	18		239
Cat All All same about	60	6037	900

Nearly all the large tributaries of the Alle-gany interlock with other waters, whose outlet to the ocean is far distant from that of its own. Potter county gives rise to the Allegany, a tributary of the Mississippi, the Genesee, a tributary of the St. Lawrence, and to some of the head waters of both the north and west branches of the Susquehanna. Oswaya and Olean creeks interlock with the branches of the Genesee, and the valley of the latter is to be the route by which the contemplated canal will reach the Allegany. Olean and Great Valley creeks interlock with Cattaraugus creek, a large stream, which falls into lake Erie, some forty miles south-west of Buffalo. Connewango creek is the outlet of Chautauque lake, a fine body of water, near twenty miles in length, the upper end of which approaches to within eight miles of lake Erie; its elevation above the latter, hower, is very considerable. One or two steamboats ply regularly on Chautauque lake; and it is said that ao other steamboats in the world float at so great an elevation above the level of the sea. There is something sublime in the idea that steamboats are navigating a tributary of the Mississippi, two thousand five hundred miles above its mouth, and that tributary only divided by an isthmus of eight miles from another inland navigation of more than two its arms to the vicinity of the lake, and is prooably the best foute for a water communicanland sea. Clarion river and Redbank creek ooth interlock their branches with those of the Susquehanna, and many intelligent gentlemen who are well acquainted with the country at their heads, are firmly persuaded that an unoroken water communication between the Allegany and Susquehanna can yet be made through one of these streams. The Kiskithrough one of these streams. minetas is well known as the route of the western section of the Pennsylvania canal from the case of the Allegany mountain to its junction with the Allegany river.

We have been thus particular, because in this emarkable feature lies the chief importance of this river. It seems as if the Author of Nature, in stretching its branches in so many lifferent points towards the great eastern and northern channels of navigation, was inviting nan to avail himself of the incalculable advantages to be derived from an unbroken comnunication between them and those of the west. It is, in fact, the key of the valley of the Mississippi; and the day will come when the commerce of half the Union will be here concentrated—when boats from the Lakes, the Hudson, the Delaware, and the Chesa-peake, will here mingle with those from every part of the vast and fertile regions of the west

The general features of the Allegany are peculiar, and in some respects remarkable. For the greater part of its course it flows, not through a valley, like most other rivers, but through a great ravine, from one to four hun-ired feet below the common level of the adjacent country. From about the middle of Armstrong county downwards, it is true, there are many fine bodies of alluvial land-on one of which this borough is located—but from that upwards, precipitous hills for the most part jut close to the water's edge on both sides of the river. The scenery is, in some places, wild and rugged, though more generally picturesque and beautiful—for the hills, though steep, are covered with a heavy growth of forest trees, presenting the appearance of a vast verdant wall on either hand—while the pure, limpid water of the river, alternately purling over the pebbly ripples and sleeping in deep intervening pools, completes a scene the beauty of which is rarely equalled.

Another peculiarity of the Allegany is the regular succession of alternate ripples and deep pools. The ripples are generally short, and the descent considerable, over which the water flows with a smooth but rapid current, though not so swift but that a steamboat of light defi and salinary power can account light draft and ordinary power can ascend them without difficulty, as has been done re-peatedly. The current in the pools is very peatedly. The current in the pools is very gentle at low water, but during high water it becomes very nearly uniform. Although the river seems to have worn for itself its present depressed bed, by cutting through various horizontal strata of rock, yet there are no rocks, strictly so called, in its channel—nothing but round pebbles. The ripples are composed exclusively of these, apparently scooped out of the pools above. The flat unbroken rock is in seme places found in deep water. It follows of course, that the naviga-It follows, of course, that the navigawater. tion of this river is unusually safe.

No river is better adapted to improvement

by artificial means than the Allegany, either by a succession of low dams and locks, or by merely concentrating the channel upon the ripples, so as to give sufficient depth of water at all sea-sons for steamboats. When it is remembered that a steamboat did regularly ply upon it be-tween Pittsburg and Warren for a considerable time, even when the water was quite low, and that in one instance it ascended to Olean, it will readily be admitted that a very slight improvement would render it an excellent

steamboat navigation.

The mineral wealth of this river is another important consideration. Bituminous coal, in exhaustless quantities, extends as far up as Clarion river, and some even higher up. believe (and we are not alone in this opinion) that the day will come when the trade in this article alone will be of sufficient importance to warrant the construction of navigable communications from this river to lake Eric and to the New-York canal, were there no other trade. We shall merely add that it could be delivered on board of boats for two and a half cents per bushel, and leave others to fill out the calculation for themselves.

There are along the Allegany and many of its tributaries immense forests of white pine, from which the Ohio country draws almost its entire supply of lumber. It forms a large and important trade.

Iron also abounds along the Allegany, and is manufactured in considerable quantities.

INTERNAL IMPROVEMENTS. - The projected Grand Belt of the Union, or the connection of the vallies of the Tennessee and Mississippi, by a railroad with Washington and the Atlanby a railroad with Washington and the Atlantic cities, is now in progress. We will endeavor to show that by fostering and supporting the same principle of internal improvement, the valley of the Mississippi, and particularly the city of New-Orleans, has advantages vast and important to gain by it. We will only instance one circumstance which is the important of the city of th instance one circumstance, which is the improvement of the navigation of the Red River, being in progress also under the superinten-dence of Captain Shreeve, with his snag boats, for the removal of the Great Raft, as also snags, logs, &c. which when done (for it is practicable, and can be done at a reasonable expense,) its channel will be deepened, and through the general course of the river it will be brought into narrow bounds, and reclaim millions of acres of as fine land as are in this or any other country. Then we should have steamboat navigation even past the centre of our continent (westwardly) from the Atlantic to the Pacific ocean, and probably from 1000 to 1800 miles, above the Raft. We should not only give facilities of intercourse and transportation to an immense extent of our own territory, but would open a trade to the internal Mexican States for the supply of merchandize for at least one million of inhabitants already tocated there. Our domestic manufacture

would embrace the larger portion. Those inhabitants are now supplied from Metamoras,
St. Louis, and also in and through Calefornia,
on the Pacific, (those that pass through the
latter are a greater portion imported direct
from India.) It will be perceived that the route

Specification of the Patent granted to James

CHESTERMAN, of Sheffield, in the County
of York, Mechanic, for certain Improvements on Machines or Apparatus for Measuring Land and other Purposes. Sealed

The Patent granted to James
that the box is furnished inside its upper
rim with a rack or cogs, which take into the
cogged wheel at C, which, in its turn, takes
into the pinion E. This pinion is fixed to
suring Land and other Purposes. Sealed on the Pacific, (those that pass through the latter are a greater portion imported direct from India.) It will be perceived that the route by the Red River, would monopolize nearly all the trade to an extent of territory embracing at least 1000 miles square above the Raft, and nearly the whole of the productions of this vast region would find an outlet by the same pliance with the said proviso, I, the said channel, such as silver, gold, copper, hides, furs, peltries, cotton, sheep's wool, &c. line or route would be in connection with the Rio Colorado of the west, which empties at the head of the Bay of Calefornia, and is or may be navigable for steamboats for a long distance.

How happily those natural channels, by the small assistance of art, are calculated to improve the condition of our own citizens as well as the citizens of the Mexican States, and why will it not be the governing principle or regulator between the two nations, that will cause each to be just and at least friendly to the other. For instance, the great extent of Mexican territory that will be dependent on the outlet via Red River and the Mississippi for their productions, as well as greatly feathering the introduction of marketing the introduc facilitating the introduction of merchandize, the key of which is entirely within our territory.

As to the value of the privilege that may be estimated by the Mexican government, we can draw a comparison from our own purchase of Louisiana, for the privilege of an outlet for the productions of the valley of the Mississippi, and who could have imagined, in 1802; that the productions from this valley would have so nearly equalled the exports of the productions of all the other ports of the United States. The first Cotton that was shipped from the port of New-Orleans was, in 1798; 18 baies that were shipped to Charleston, S. C. for a market. The full crop is now es-timated for a good season at 500,000 bales, besides 120,000 hhds. sugar, 35,000 hhds. tobacco, as well as all kinds of Northern productions, such as bacon, pork, lard, flour, corn, &c., hides, peltries, furs, &c.

And now, you would ask, where would be our privileges that would be brought to bear on this governing principle or regulation, that would perpetuate those friendly relations between ourselves and the Mexican government. In the first place, it would increase and secure an immense consumption of our domestic manufactures, such as brown and bleached cottons, printed goods, more particularly of the blue dyes, which are preferred to the European, as ours are heavier and the dyes are permanent. But added to these, there is also the long list of innumerable domestic manufactured articles, and in the next place we shall be their importers for all the European merchandize, (I would not wish to infer we would have the duties,) but it would be suffi-cient for us to do the business of importing and realize a fair profit for our services. there are other considerations, for instance the establishment of a regular mail communication from this to the Gulf of Calefornia, whereby we may facilitate our commerce with China and the East Indies, as also in the whaling business, and who knows but that in this age of improvement we may soon, yes, very soon, have an interchange of diplomatic agents with the Japanese, whereby a profita-ble commerce may be carried on with them. The nearest we approach to it at this time is in the whale fishery, which is pursued near their coast, but not generally even in sight of it.

July 14, 1829. [From the Repertory of Arts, &c.]

To all to whom these presents shall come, &c. &c. Now know ye, that in com-James Chesterman, do hereby declare the nature of my said invention to consist in what is commonly called a measuring tape. in which the cylinder or barrel on which the tape is wound is connected with a strong watch or clock spring, according to the size required, in such manner as to wind up the tape after it has been drawn out, without any effort on the part of the operator. And in further compliance with the said proviso, I, the said James Chesterman, do hereby describe the manner in which my said invention is to be performed, by the following description thereof, reference being had to the drawings annexed, and to the figures and le ters marked thereon (that is to say):

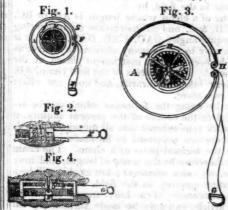


Fig. 1 represents one of my improved measuring machines of a short length, as, for instance, a yard, for which length a simple attachment of the cylinder or barrel on which the tape is wound to an ordinary strong steel spring is sufficient, as here shown. A is the outer case of the machine; B, the cylinder to which the tape is fastened, and which forms also the box of the spring; C, the stud to which the spring is attached, being also the axis on which the cylinder turns; D, the spring coiled round in the box; E, the tape and loop to pull it out by; F, two rollers, between which the tape passes; I, a small bolt which pushes the tape against one of the rollers, and thus stops it at any given length till the bolt is withdrawn.

Fig. 2 is a section of fig. 1, in which si. milar letters are used to denote similar parts. G is a top or cover screwed down upon the case over the works, to keep the same in their places when the spring is in action.

Fig. 3 represents one of my improved measuring machines of a larger size, and a greater length of tape, for which it is ne-cessary to provide that the tape shall wind ological surveys, even in New-England, by up on the cylinder faster than the spring unwinds from the stud or axis, otherwise the spring would be of an inconvenient length; this is effected by an arrangement of cogged wheels, or racks and pinions, as here shewn. A is the outer case of the machine; B, the The above is thus publicly submitted with the hope that it may elicit, from others, a more detailed account of the country, its statistics, as well as all other matters that would pertain to the subject. P. F.—[N. Orleans Bulletin.]

axis of which pinion serves to form a stud to fasten the inner end of the spring to the arms. H, H, C, serve to keep the spring in its place while in action. The rest of the apparatus is the same as figure 1. Now it will be seen by this arrangement, that while the tape is drawing out or off the cylinder B, the pinion E will act upon the cogged wheel at C, which cogged wheel, taking into the rack inside the spring box, will wind the spring slowly up, and the cylinder will thus perform several revolutions to one of the spring box. If the tape then be released, the rack attached to the spring box communicates motion to the cogged wheel at C, and thence to the pinion, E, which winds up the tape with the same relative velocity.

Fig. 4 is a section of fig. 3, in which G represents the cover or top of the machine, which part is supposed to be removed in figs. 1 and 3, for the purpose of botter showing the mechanical arrangement of the machine.

Now, whereas it is evident that this instrument is susceptible of various modifications both as to material and arrangement, but whereas, I claim as my invention the application of a spring to make it a selfwinding instrument, together with the application of two speeds, in order to make the sort of spring here shown answer for long tapes, and also the adjusting bolt, I; and such my invention being, to the best of my knowledge and belief, entirely new and never before used within that part of his said Majesty's United Kingdom of Great Britain and Ireland called England, his said dominion of Wales or town of Berwick-upon-Tweed, I do hereby declare this to be my specification of the same, and that I do verily believe this my said specification doth comply in all respects fully and without reserve or disguise with the proviso in the said hereinbefore in part recited letters patent contained; wherefore, I do hereby claim to maintain exclusive right and privilege to my said invention.-In witness whereof, &c.

Enrolled January 9, 1830.

AGE OF THE WORLD .- We view it as a curious and deeply interesting fact, that all the old poets and philosophers were impressed with an opinion that this earth is of recent production. "Had heaven and earth known no beginning," exclaims one, "but has endured from all eternity, why have we no poets transmitting to us the knowledge of the great events prior to the Theban war, and the downfall of Troy?" Lucretius entertained just notions on this subject :

"If genial nature gave the heavens no birth, And from eternal ages rolled the earth, Why neither wars nor poets,—ages, tell— Till Homer sung how mighty Hector fell?

From the book of Genesis to the last ge-Professor Hitchcock, there is a chain of po-sitive testimony, which shows most conclusively that the earth which we inhabit has not been in its present condition longer than about six thousand years. Cuvier, the most perfect scientific man of modern days, discoGRAAFF. [For the American Railroad Jour-

-When it becomes necessary for road to pass from a right line into a curve the former should in all cases be laid tangent to the latter. It is, however, unnecessary, in ordinary roads, to adhere to this principle with the rigor of an accurate geometrical construc tion; but with reference to a railroad, it should be observed with the greatest care and precision, as well as the general selection and distribution of the various curvatures. This is an obvious consequence of the well known law of inertia; for any two points being fixed, in the general direction of a route, through which it is proposed to lay a line of railroad composed of several curves and intervening tangents, the cost of construction is in most cases not the only requisite datum to fix the definite location of the intermediate points.

There are, indeed, very few varieties of ground, except in a very broken country, which will not admit of several different lines connecting the same points, all at nearly an equal expense of construction, and all within the same limits of curvature. It therefore becomes an object to make such a selection or right lines and curves, and such a distribution thereof, as will produce, at a given expense, the

most efficient road.

The effect of curvature, upon the cost of transportation, does not fall within the present subject; and the only general rules which can therefore, be here given, as a guide for the arrangement of a line, are the following: Endeavor to open the closer curves by increasing their length, or by increasing the length of some of those which have a greater radius, or by giving some tangent line a different direc-tion. But a sufficient dexterity in the judicious But a sufficient dexterity in the judicious arrangement of the curvatures of a line can on ly be had from experience; and the principal object which is here proposed, is an investiga-tion of the various formulas which are required

in facilitating the operations in the field.

2. In order to obtain results which are of commodious application in the field, it is necessary to use only circular arcs for curves but when the situation of the ground is such as to render a continuous arc of the same curvature inapplicable to the purposes required, a curvilmear line may nevertheless be traced in such a manner as to take any desired form, in order to pass through any number of designated points, by merely connecting together a succession of circular arcs, having different radii of curvatures. To make a good selection in the field, for those different circular arcs, requires skill and judgment; but the only additiona care to be observed in the operations of tracing such a selected line, will arise from the neces sity of connecting the different arcs in such a manner as that they may have a common nor mal at their point of connection.

The following well-known properties of the circle exhibit the first principles which will be

cessary in the subsequent inquiries.

Theo. I. The angle of deflection* between two equal and contiguous chords is measured by the arc which is subtended by either of the chords. II. If there be a tangent line, and a chords. II. If there be a tangent line, and a chord from the touching point, the angle of de-flection from the tangent line into the chord

On the Location of Railroad Curvatures; being an Investigation of all the Principal Formulas which are required for Field Operations, in laying Curves and Tangent Lines, to pass through Given Points. By J. S. VAN DE Grant Effort the American Poilbook Points. By J. S. VAN DE Constitution of the intercepted arc. IV. Any angle at the circumference, standing upon a given chord, will have a constant value for all positions of that chord upon the circumference; and this constant value is one-half of the arc subtended by the given chord. These principles are presumed to be familiar to the reader; and have been here transcribed only for the sake of convenient reference.

3. Let any number of equal straight lines AB, BC, CD, &c., be connected together in such a manner at their extremities, that the angles BAC, CAD, DAE, &c., may be all equal to each other: then follows from Theo. IV., Art, 2, that the points A, B, C, D, &c., will all be situa-&c., will all be situa-ted in the circumference of a circle. And this obviously suggests the common me-thodof tracing a circu-

lar arc in the field, by means of a chain whose length is AB, or BC, or CD, &c., and an instrument for measuring the equal angles BAC, CAD, DAE, &c. It is thus easy to set as many stations in a curve as can be seen from an instrument placed at the station A. The position of the first chain, AB, is here taken arbitrarily, and does not effect the curvature.

4. In using the formulas which will be de luced in the course of the present inquiry, it must be remembered that all measurements of distance are supposed to be made in chains, and the decimal parts of a chain. The chain will therefore be the unity of length, and may have any value whatever; but as this will be a constant quantity in the field, it follows, that the curvature of a line, traced as in the last article, can only be made variable by as suming, in succession, a different value for those equal angles BAC, CAD, DAE, &c. These equal angles will therefore be called the modulus of curvature, and will always be denoted by a letter T. The modulus of curvature will therefore be a constant quantity in the same curve, but variable in different curves; and any curve will be given, when its modulus of curvature is known. The letter n will be taken to denote the number of chains composing any arc which may be under consideration, and the letter D to represent the number of degrees contained in that arc. It is then obvious from Theo. IV., Art. 2, that each chain will subtend a portion of the circumference equal to 2T; and consequently the following formula is the evident result,

$$D = n \times 2T. \tag{I.}$$

This expression gives the number of degrees which any arc contains, when the modulus of curvature and number of chains are known.

5. In tracing a circular arc of given curva-ture, by means of chords of more or less than one chain in length, the particular modulus of curvature corresponding to any given length of chord will be nearly proportional to the length of that chord, when that length is only a very small part of the whole circumference. For in this case the length of the given chord will be nearly proportional to the number of degrees in the arc which it subtends, and therefore, also, by Theo. IV., Art. 2, nearly proportional to its particular modulus of curvature.

Hence T denoting the modulus of curvature Hence T denoting the modulus of curvature for a given curve with a chain whose length is unity, then $p \times T$ will be nearly the modulus of curvature for the same curve when traced by means of chords whose length is p chains. This result is only approximative; but a rigorous formula will be investigated hereafter. It

6. Since each chain in a curve subtends a portion of the circumference equal to double the modulus of curvature, it follows, from Theo.
I., Art. 2, that the angle of deflection between any two contiguous chains will likewise be equal to double the modulus of curvature. And it thus also obviously appears, from Theo. II.,
Art. 2, that the angle of deflection from any
chain into a tangent line at either of its extremities, will be equal to the modulus of curva-

7. When a given curve contains more than one chain of the same modulus of curvature, and the direction of a tangent line at any station be required, it should never be found from the direction of the first chain at that station; for small errors will arise, both in placing the in-strument vertically over one of the stations, and in taking the back sight to the centre of the other, and the angular effect of these errors will obviously diminish as the two stations are more remote. In order, therefore, to obtain the direction of a tangent line at any station in a given curve, direct the instrument into a chord, embracing a number of chains in the proposed curve, denoted by n; and it then appears, from Theo. III., Art. 2, that 1D will express the angle of deflection from the selected chord into the required tangent line. Hence, by Art. 4, the formula required in obtaining the direction of a tangent line is,

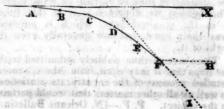
$$\frac{1}{2}D = n \times T . (II.)$$

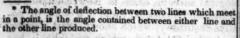
8. The general method of tracing a curve in the field, having the modulus of curvature given, will appear from Art. 3; but it remains yet to show how such a curve may be laid to a given tangent line at a given point. It is obvious from Art. 6, that the required object will be attained by laying the first chain from the given point with an angle of deflection from the given tangent line, equal to the modulus of curvature of the proposed curve. For then the same curve may obviously be continued from that first chain to any number of chains, by the method of Art 3.

9. It is frequently necessary to pass from one given curve into another, having a different modulus of curvature. When this case occurs, the instrument must be placed at the station where the change of curvature is to be made; and let it be directed into the tangent line of the first given curve at that station, agreeably to the method in Art. 7. The instrument may then be considered as adjusted, so as to be in readiness, either to lay a continuation of the first given curve, or to lay any other curve, from another given modulus of curvature, in such a manner as to have a common tangent with the first curve at the point where the two curves pass into each other; and it is sufficiently obvious that, in either of these two case the selected curve must be traced agreeably to the principles given in Art. 8.

When, therefore, a change of curvature occurs at any station, the angle of deflection be-tween the two chains at that station will be equal to the sum of the two moduli of curva-

10. Let AB, BC, CD, &c. represent the successive chains by which a given curve, ABCD, &c., may be traced from its origin at the station A, in such a manner as to touch a given right line, AX, at that point. It is proposed to investigate a formula which will express the inclina-tion of the given tangent line AX, to the nth chain in the given curve, estimating from the origin at the point A.







hus DBC is the angle of deflection between the AB and BC.

Take EF to represent the nth chain; and let the letter E denote the required inclination of the line EF to the given tangent line AX. The inclination of the first chain, AB, is expressed by the given modulus of curvature T, agreeably to Art. 6, or 8; and consequently, the inclination of the second chain, BC, will be expressed to The expression (V.) will find an application of the second chain, BC, will be expressed to The expression (V.) will find an application by T + 2T, or 3T. In like manner the inclination of the third chain, CD, is expressed by 3T + 2T, or 5T. Hence the inclinations of all the chains AB, BC, CD, &c. will obviously be expressed by T, 3T, 5T, &c. respectively. The problem is therefore evidently reduced to the following very simple inquiry, viz.: To find the value of the nth term of the series 1, 3, 5, 7, &c. But agreeably to the principles of arithmetic, this nth term will be expressed by 2n-1. The desired formula will therefore be,

$$\mathbf{E} = \mathbf{T} \times \overline{2n-1}. \tag{III.}$$

The expression (III.) will be frequently very convenient in the field when it is required to compute the magnetic bearing of any particular chain in a long curve, when the bearing of the given tangent line at the origin is known. If the country be free from metallic matter, and the instrument be in proper order for use, the magnetic bearing will always serve as a very useful check in detecting any material error which may have been inadvertently committed in the previous deflections. By way of a numerical illustration of this, let the given tangent line AX bear due North; and let the given modulus of curvature be 2° , to find the bearing of the 20th chain. Here $T=2^{\circ}$, n=20; and therefore $\mathbf{E} = 2^{\circ} \times 40 - 1 = 78^{\circ}$; and if the curve be supposed to bend to the left, then the bearing of the 20th chain is N. 78° W. If the observed course do not correspond with this result, some error has been committed in tracing the curve. This method of proof is so very simple, that it should be attended to frequently in tracing long curves, in order to avoid useless labor after some error may have been already committed. The magnetic bearing of a particular chain in a curve is also sometimes required in the field for other purposes.

11. Let ABCD, &c., represent a given curve traced as in the last article; and take EF to represent the nth chain estimated from the origin at the point A. It is proposed to find a method of directing the instrument, when placed at the station F, into a position parallel to the given tangent line AX at the origin of the curve

Direct the instrument into a chord, through any of the back stations, as for instance the station C or D, (see fig. Art. 10,); and, from that chord, deflect into the tangent FI, at the station F, agreeably to the method given in Art. 7. Take D' to denote the inclination of the tangent FI, to the given tangent AX at the origin of the curve, and it evidently follows, from Art. 6, that, D'=E+T; or, substituting for E its value from (III.), the following expression is at once obtained.

$$D' = 2nT . (IV.)$$

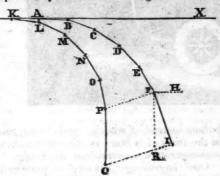
Hence, from the tangent FI, deflect an angle IFH equal to 2nT; and the instrument will then have the required position FH.

The principle which has just been explained will very frequently be highly useful in the field. For if the origin of the given curve ABCD, &c. be removed from the point A, to any other point in the tangent line AX, then the station F will be changed exactly by the same quantity, and in the same direction, upon the line F H, as will be hereafter shown.

12. Let any two curves be laid upon the same tangent line, and take T and T' to represent the two moduli of curvatures, and let each curve pass into a tangent at the extremities of the ath and ath chain respectively. It is then proposed to determine a formula which will express the inclination of those latter tangents to each other.

Take z to denote the inclination required. From (IV.) it appears, that 2nT, and 2mT', respectively, will express the inclination of each of the proposed tangents to the common tan-

The expression (V.) will find an application in the field in all cases where two tangents are under consideration; for in computing the rate at which any two tangents converge or diverge, their inclination to be able to the convergence of accuracy. their inclination to each other is, of course, the first datum required. The principles con-tained in (V.) and its application to different cases occurring in the field, will be more easily explained by a reference to a figure. Let A B



C D. &c., represent the curve whose modulus of curvature is denoted by T, and let EF re-present the ath chain, and FI the tangent at F. in like manner let KLMN, &c., represent the curve whose modulus of curvature is denoted by T', and let OP represent the mth chain, and PQ the tangent at P

Draw FH parallel to KX, the common tangent at the origins of both curves; and draw also, FR parallel to the tangent PQ. The inclination of the tangent FI, to the common tangent KX, will evidently be expressed by the angle HFI, or 2nT; and the inclination of the gie Hri, or 2n1; and the inclination of the tangent PQ, to the same common tangent, will in like manner be expressed by the angle HF R, or 2mT'. Hence the angle IFR, which measures the inclination of the two tangents, FI and PQ, to each other, will be expressed by the quantity 2mT—2nT. When, therefore, the value of z in (V.) comes out negative, it shows that the line FR falls below the tangent FI; that is, the two tangents in that case diverge. When z comes out positive, the line FR will be situated above the tangent FI; that is, in such a case the two tangents PQ and FI will converge. It is here supposed, however, that the two curves do not intersect each other It is sufficiently obvious that the angle 2nT will remain the same, whatever position may be given to the origin A in the tangent line AX and it hence evidently follows, that the distance AK, between the two origins, has no connection whatever with the inclination of the two tangents, FI and PQ, to each other. The distance AK will, however, have an effect upon the line PF, which expresses the distance be-tween the extremities of the two curves. Supposing the distance AK, and the moduli of curvatures, with the number of chains, n and m, contained in each curve, to be all given, the line PF may be computed by methods which will be hereafter explained; and then the angle IFR, which measures the inclination of the two tangents, FI and PQ, to each other, being known from (V) it will be easy to compute ing known from (V.) it will be easy to compute the situations of any proposed points, in those two tangents, which may come under con-sideration in the field, by the common methods of plane trigonometry

When the distance PF is very small in com-parison with the length of the tangents FI or PQ, and when these tangents are but little inclined to each other, every necessary calcula-tion in the field may be made by means of very simple approximative methods. All this will be fully explained in the subsequent articles.

[To be continued.]

Urica, 26th August-Mechanics Con The Mechanics State Convention convened at the Court House in this city on Wednesday morning last, and organized by appointing RUDOLPH SNYDER, Esq. of Utica, President; Anson Baker, of New York, and Frederick Starr, of Rochester, Vice Presidents, and Robert Taylor, of New York, and R. Hogarth, of Mouree, Secretaries. The Convention continued in session until 4 o'clock on Thursday afternoon. The proceedings were characterized by great unanimity and harmony of feeling, and were unusually interesting. Several very able addresses were delivered, which must have satisfied all who ternoon. great una heard them, that talents are not confined to the learned professions. The details and facts laid belearned professions. The details and facts laid before the Convention as to the ruinous effects produced on many branches of the mechanics by the
State Prison monopoly, and the distress and ruin
brought upon those who have heretotore supported
themselves respectably and comfortably by those occupations which now come in competition with State
Prison labor, were truly appalling. Some facts
were disclosed also, with regard to the letting of the
contracts, which went to show that corruption and

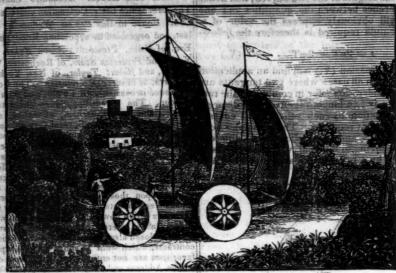
were disclosed also, with regard to the letting of the contracts, which went to show that corruption and favoritism are not entirely banished from our land. The Address and Resolutions adopted by the Convention, were ably drawn up, and set forth their grievances, and their determination that those grievances shall be redressed, in firm but temperate landers and the showing that the challenge with his guage, evidently showing that the feeling guage, evidently showing that the feeling which is now aroused will not be suffered to languish until the object for which they assembled is attained. We believe that this is the commencement of a new era with the mechanics of our State, and that they are destined speedily to take a much more elevated rank in the community than they have hitherto occupied. -[Oneida Whig.]

Crops in Georgia.—A letter from Macon, dated ug. 15, says :-

Aug. 15, says:—
"I have just returned from a tour through most of the counties lying between the Ockmulgee and Chartahoochie rivers. The crops of corn and cotton I found at least equal to what I had ever before seen them, at this season of the year. The corn crop is made, and is acknowledged by all to be the most abundant one that there has been for many years.— The cotton crop is now so far advanced, that some extraordinary occurrence must take place to prevent a large product being realized, and should we have an ordinary season from this time out, the greatest an ordinary season from this time out, the greatest product per acre will be realized, that there has been within my recollection. The plant is large, and unusually well bolled. The high prices induced the planters to extend the cultivation to the extent of their ability; and should the crop mature, as it now promises, the exports for this coming season, will not be less than 90 to 100,000 bags, against 70,000 the present season; and from Columbus, 25 to 30,000, against 17,000. In the course of my route, I met with many persons from various parts of the up country, who gave similar accounts of the crops. Whilst in Columbus, I met with many intelligent travellers from the Western States, who of the crops. Whilst in Columbus, I met with man intelligent travellers from the Western States, wh represented the crops in those States as being more promising, if possible than they are in this. The planting interest in the interior of Georgia, is in a more prosperous condition than I have ever before known it, and there is very little pecuniary embarrassment among the people generally."

Singular Conflict .- One day last week a striped snake two feet long, seized a young bullfrog in a marsh back of our office, and began to swallow him whole; while in the fall tide of successful experiment, a monster of a bullfrog crept from the mars ment, a monster of a builtrog crept from the marsh, seized the snake, and began to swallow him. He made such fearful progress, that soon the snake was obliged to release his prey and defend himself. In spite of his struggles and contortions, the frog had swallowed all but about an inch of the tail, when some boys began to beat and abuse the old frog.—During this onset the snake managed to wheel about and soon run his head out of the frog's mouth and branished his forked tongue with much fury. The boys continued to work with the frog until finally the snake crept out and moved off slowly, evidently much snake crept out and moved off slowly, evidently much injured by the operation. We have been greatly provoked in our boyish days to see bullfrogs swallow our young ducks and chickens, but we never before saw the frog carry the war so far into the enemy's country as to attack its natural enemy, the snake.—Whether this is an uncommon occurence or not, we are unable to say, but it is certainly the first time we ever saw any thing of the kind.—[Westfield Journal.] matrical





most as difficult to assign limits to human in the form of a boat, if the ice break the ingenuity and invention, as to human ambi- passengers are secured from drowning. tion. That there are limits which the one cannot pass, while the other is boundless as the imagination itself, will not be denied; body of it is in the form of a boat; the axlebut the scientific discoveries of the last half trees are longer, and the wheels further century must make us hesitate before we say such or such a thing is impossible. In mechanics, in chemistry, and in the ingenious branches of the fine arts, improvements and discoveries have succeeded each other with a rapidity which outstretched all anticipation, and have set all calculations at defiance. No man will now dare say to any of these branches of science, "hitherto shalt thou go and no farther.'

To be enabled to make the wind, which bloweth where it listeth," subservient to the purpose of propelling huge vessels on the ocean, and thus to form an intercourse with the most distant parts of the world, was a great triumph of science; but to be able to steer a vessel with a rapidity that the wind does not generally afford, in a dead calm, or independent, or even against the wind, by steam, is a discovery which would not have been credited a century ago; and other discoveries which were once thought equally improbable have since been made.

The wind, which has been of such good service on the ocean, has for ages been used in machinery on shore, such as the working of mills, &c. Some individuals have, how ever, thought it might be used to propel vehicles on land. In the last century, Stephinus, of Scheveling, in Holland, constructed a chariot on wheels, to be impelled by the wind, the velocity of which was so great that it would carry eight or ten persons from Scheveling to Putten, a distance of forty-two English miles, in two hours.

Carriages of this kind are said to be frequent in China; and in any wide level country must be sometimes both pleasant and profitable. The great inconvenience attending the machine is, that it can only go in the direction the wind blows, and even not then, unless it blows strong; so that after you have got some way on your journey, if the wind should fail or change, you must either

THE SAILING CHARIOT.—It would be al- bottom instead of wheels; and being made

Our engraving presents a perspective view of Stephinus' Sailing Chariot. The asunder, than in ordinary carriages, in order to prevent its being overturned. The body is driven before the wind by the sails, guided by a rudder.—[London Mirror.]

STOVES .- Our readers may perhaps be a little surprized at our taste in calling their attention to the subject of stoves in the month of August. But no other apology is necessary than simply assuring them that a discovery has been made, somewhat recently, of a method of warming apartments by an uncommonly economical contrivance, which must recommend itself to every candid observer. Autumn will make its advances by and by, and when Boreas begins his howlings round the best constructed dwelling, there is peculiar satisfaction in knowing that the approaches of cold weather can be met at the threshold with impunity.

But to the point: Thomas G. Fessenden, Esq. extensively known as an author, and particularly by his efforts in scientific agri-culture, as editor of the New-England Farmer, has constructed a stove, which is truly a fuel-saving invention. That it may be talked about and tried, we have ventured thus seasonably to recommend it to patronage abroad. The principle on which its excellence depends is so simple, that on that account alone it presents a stronger claim to patronage. Fessenden's stoves are always convenient, on account of the volume of hot water which they contain.

They are also comforts, because they radiate heat with a comparatively small quantity of fuel. And they are wholesome too, because an evaporation is continually going on from the surface of the water concealed within an urn. Finally, the room is warmed by hot water, and not by the fire that heats the water.

Had Mr. Fessenden furnished himself with an engraving of his Economist, a name we have christened it by, we should have proceed on foot or stand still.

The Hollanders have small vessels, somebut we shall, nevertheless, recommend the
what of this description, which carry one or
stove for school rooms, libraries, and halls,
two persons on the ice, having a sledge at in which large assemblies meet, as being

altogether superior to the thousand-and-one inventions already stowed away in the pa-tent office. Menageries too, as already remarked in the first volume of the Tracts, would save their animals from premature

death by the gentle warmth given out by this comfort taking contrivance.

Perhaps all this recommendatory notice may fail of its object, and no one beyond the Allegany mountains may be induced to order Mr. Fessenden's stove from Boston; still, however, we have done all we are able to do to extend the reputation and high claims of the Economist, which is completely philosophical in all its parts. Mr. Fessenden is a gentleman of science, and that fact is itself sufficient to elicit the attention of well informed men .- [Scientific Tracts.]

SELF-TAUGHT MECHANIST .- A boy, of the name of John Young, new (1829) residing at Newton-upon-Ayre, in Scotland, constructed a singular piece of mechanism, which attracted much notice among the ingenious and scientific. A box about three feet long by two broad, and six or eight inches deep, had a frame and paper covering erected on it in the form of a house. On the upper part of the box are a number of wooden figures, about two or three inches high, representing people employed in those trades or sciences with which the boy is familiar. The whole are put in motion at the same time by machinery within the box, acted upon by a handle, like that of a hand organ. A weaver upon his loom with a fly-shuttle, uses his hands and feet, and keeps his eye upon the shuttle as it passes across the web. A soldier, sitting with a sailor at a public house table, fills a glass, drinks it off, then knocks upon the table, upon which an old woman opens a door, makes her appearance, and they retire. Two shoemakers upon their stools are seen, the one beating leather, the other stitching a shoe. A clothdresser, a stone-cutter, a cooper, a tailor, a woman churning, and one teazling wool, are all at work. There is also a carpenter sawing a piece of wood, and two blacksmiths beating a piece of iron, the one using a sledge, and the other a small hammer; a boy turning a grindstone, while a man grinds an instrument upon it; and a barber shaving a man whom he holds fast by the nose with one hand.

The boy was only about seventeen years of age when he completed his curious work. and since the bent of his mind could be first marked, his only amusement was that of working with a knife and making little mechanical figures; this is the more extraordinary, as he has no opportunity whatever of seeing any person employed in a similar way. He was bred a weaver, with his father; and since he could be employed at the trade, has had no time for his favorite study, except after the work ceased, or during the intervals; and the only tool he has had to assist him was a pocket knife. In his earli-est years he produced several curiosities on a similar scale, but the one now described is his greatest work, to which he devoted all his spare time during two years.

SAND OF PEKIN. - All travellers, says St.

1132 feet in one second, or 13 miles in a minute. The softest whisper flies as fast as the loudest thunder; and no sound produced by artificial means can be heard over 200 miles. In the war between England and Holland, in 1672, the guns were heard in those parts of Wales judged to be nearly 200 miles distant from the scene of action; but sounds arising from volcanoes have been heard at a much greater distance.

Light goes about 13,000,000 of miles in one minute. A strong wind flies 20 feet in a second. If the distance between us and a cannon when fired be one mile, we hear the report 24 seconds after we see the flash. The nearest of the fixed stars is 5000 times The nearest of the fixed stars is 5000 times When one of these animals is cut in half, more distant from us than the sun: its distance, then, must be 77,400,000,000 miles. Were a cannon fired from a star, it would retails itself; but the tail swims to the bottom, quire 5,400,000 years for the report to reach us. The hardest metals on which common fires, and even glass-house furnaces, could produce no effect, have been melted in a few seconds by means of lenses or mirrors called burning glasses. M. Villet, a native of France, about 100 years since constructed a mirror 3 feet 11 inches in diameter, and 3 feet 2 inches focal distance, which was so powerful that it melted copper ore in 8 seconds, iron ore in 24 seconds, a fish's tooth in 32 seconds, cast iron in 16 seconds, a silver sixpence in 7 seconds, and tin in 3 seconds. M. Villet's mirror condensed the this mode of propagation, which physiologists rays of the sun 17,257 times, a degree of heat which is about 190 times greater than common fire.

Mr. Parker, of London, constructed a lens 3 feet in diameter, focus 6 feet 8 inches, weighing 212 pounds. It melted 20 grains of gold in 4 seconds, and 10 grains of platina in 3 seconds. The broader the lens and shorter the focal distance, the more intense is the heat produced by such instruments. A globular decanter of water is a powerful burning glass, and furniture of houses has taken fire by incautiously leaving it exposed to the sun's rays. - [Lynceus.] viviparous.

PLANARIE. -On January the 27th, at the Royal Institution, Mr. Faraday proceeded to been previously supposed to exist between the lay before the literati assembled, an account of propagation of plants and animals by cuttings Dr. R. Johnson's investigations into the restorative, productive, and reproductive powers of the Planariæ, a genus of small animals allied to the leech, and of which there are several known species, viz., P. torva, lactea, hastata, arethusa, felina, &c., the three first of which are to be found abundantly in a pond near the Red.House, Battersea Fields.

From Dr. Johnson's experiments, it appears that if an incision be made longitudinally into the head of the animal, so as to separate its eyes from each other, if the cut has not been carried very far down, it will heal in the ordinary manner; but if the head be absolutely cleft in twain, then, according to the extent of the fissure, there will be a mass of new matter formed by each half of the head, which will either join the two halves together, forming a head of extraordinary size, and bearing in it one or two additional eyes, or each old half, thus cleft, will form the new matter into another half with an even the new matter into another half, with an eye, and so the animal have two complete and entire heads. If the fissure be farther down through the body of the animal, then not only will there be two heads, but two bodies also formed,

veil, on account of the sand with which the air is loaded.

Philosophical Facts.—Sound travels

1132 feet in one second, or 13 miles in a sult

> If in a common planaria the head be cut entirely off, a new head will be formed; and if its lower extremity be removed, it will produce a new tail. In a planaria, which, by the opera-tion above described, had been invested with two heads, these "nova capita" were successively severed for three several generations, and were immediately and perfectly renewed, and subsequently the animal was cut through juer below the artificial bifurcation, and then only a single head was produced, so that in this most simple "capital" operation, a single headed simple "capital" operation, a single headed animal became a biceps, and, after having had the use of six heads in succession, was sub-sequently reduced to the possession of a single

> and remains torpid for two or three days, by which time it has formed for itself a head. If a planaria be cut into three pieces, the head will form a new body and tail, the tail a new body and head, and the middle section or body will produce both head and tail. If a quarter be removed by making a longitudinal incision through the head, and half down the body, and then a semi-transverse cut to remove the upper quarter, not only will the three remaining quarters speedily re-produce a new fourth, but also the separated fourth will form to itself three new quarters. Indeed, a planaria has been cut artificially institute, seems to be frequently resorted to by the animal itself. The planaria felina has been seen to throw off pieces of its body, to form new animals, and these are not diseased but healthy parts, and not only parts of its tail, but often offsets from its sides, &c. Indeed, the planaria felina, and p. arethusa, have been never known to lay eggs, whilst the torva, lactea, &c. lay them in abundance, both the original animals and those artificially produced. It would seem that those species which inhabit springs and running waters, propagate only by division; but those which dwell in ponds and ditches, where the water is occasionally exhausted, are oviparous, as well as

> The above facts are physiologically curious, as they show a still closer affinity than had been previously supposed to exist between the as well as seeds; for they have shown that this mode of propagation can be carried to an almost equal extent in the one as in the otheran extent to which the experiments of Trembley, and others, on polypi, star fish, &c., did not reach.—[Medical and Surgical Journal.]

SUGAR AN ANTIDOTE TO THE POISON OF OR FROM COPPER.—So many accidents occur from using copper vessels, that we deem it proper to give the most simple directions for counteract. ing the poisonous effects of the oxide of this metal. Sugar is a most powerful antidote against verdigris and other preparations of copper, although it is difficult to understand in what manner the beneficial process is conducted. M. Duval introduced, by means of an India rubber tube, four drachms of oxide of copper dissolved in acetic acid into the stomach of a dog; in about four minutes afterwards he instrong syrup; this dose he repeated at intervals of half an hour, until he had injected twelve ounces. During this time the animal experienced much nervous excitement, and was joined together only by the tail; and when this slightly convulsed; but after the last injection is the case, so little unanimity does there exist he became perfectly calm, and having gone to between these siamoid twin-planariæ, that they sleep, woke without feeling any farther effects other they have had.

of the poison. M. Orfila relates several in stances of persons who had taken acetate of copper, either aceidentally or designedly, having been recovered by the administration of sugar. He several times proved by experiment that a dose of verdigris, which would otherwise have killed a dog in an hour or two, might be swallowed with impunity if previously mixed with a quantity of sugar. As alcohols have a property which neutralize the most concentrated muriatic acid in ethers, it would appear sugar neutralizes the oxides of copper and lead. Subtartarate of neuter lead was, indeed, used by Berzelius in his experiments to determine th proportional parts of sugar. If an ounce of white sugar be boiled for half an hour in a phial, with an ounce of water and ten grains of verdigris, a green liquid will be procured, in which the most sensible re-agents will not indicate the presence of copper, such as hydroferrocyanate of potass, ammonia, and hydro-sulphuro; but an insoluble carbonate of copper will remain at the bottom of the vessel.—[Jour-nal des Connaissances Usuelles.]

AGRICULTURE, &c.

[From the New York Farmer.]

NORFOLK Hogs .- From two letters of Mr. W. K. Townsend, of New-Haven, to the editor of the Baltimore Farmer, we extract the following.

Dear Sir: - Your much esteemed favor of the 24th ult. came to hand some days since, and should have received an earlier answer. I have a breed of swine, (Norfolk Thin Rind breed,) which are in these parts considered rather before any other breed we have. They were imported something over four years since, by Henry Degroot, Esq. of New York. He was in England, and heard of this breed of hogs as being of much note in that country. He purchased three pigs, and on his return took them to his farm in New-Jersey, where he had a superior stock of blood horses and short horned cattle. Immediately after his return, he concluded to go to England, and spend some years in the city of London, and offered me his stock. purchased two cows, one bull, and two pigs, (one boar and a sow)—the other, a sow, he placed on his father's farm. I have since understood that it has changed the breed for the better, in all that neighborhood. Persons in this part of the country have given them a thorough trial with other breeds; and they, with the same feed, have done better than any other. I usually keep, say five or six breeding sows; and my pigs are usually all engaged before they come. I generally choose a few of the best, and sell them for breeding, at different prices, at different ages: when well weaned from the sow, five or six dollars each; and as they advance in age, so I advance in price.

The black and white is quite liked in this ection of the country; some prefer white. I did not know which (if either) you would prefer, so I send you a part of each. My old imported sow was white; the boar black and white, marked almost like them sent to you. This breed of hogs is not particular as to feed; my sows run in pasture, and get most of their living on grass, until nearly jected by the same medium four ounces of time to pig. While they nurse, I feed them on meal, beans, rye, boiled potatoes, and some corn. I am told almost daily, by per sons who have pigs from me, or of others that have got into the breed, that their pigs do much better on the same feed than any

PORFIGN INTELLIGENCE.

By the packet ship George Washington, Captair Holdrege, from Liverpool, we have received our London papers to the 23d, and Liverpool dates to the 24th. There is nothing of much political in terest.

From the Parliamentary Report, we learn that the Irish Coercion Bill was considered in Committee, and after some amendments had been proposed and ne gatived, the Chairman reported progress, and ob tained leave to sit again.

The Prisoners' Counsel Bill was read a third time and passed.

Mr. Alley, the barrister, died at his house in Albany-terrace, Regent's Park. The immediate cause of his death was scarlet fever, but he had lately be come much attenuated in consequence of the mistake he made some time age in taking poison. Mr. Alley was of very long standing at the bar, and was much respected by all who knew him.

The Poor Laws amendment bill was introduced into the House of Lords by the Lord Chancellor. (Brougham.) It was opposed by the Tories, and is very unpopular.

In France, Marshal Soult has resigned the presidency of the Council of Ministers and the War Ministry. Marshal Gerard is appoined his successor in both offices.

Don Carlos .- There is a letter in town, dated from Elisondo, in the handwriting of Don Carlos, which mentions the happy issue of his journey, speaks of the enthusiasm of his adherents, and says that a supply of arms and money only are wanting to secure the speedy success of his claims to the Spanish throne. The cause of the legitimate monarch of Spain will not fail, we feel confident, for the want of

such supplies.—[Morning Post.]
Orders have been issued for the immediate sailing of the steam frigates Salamander and Medea, from the river to Portsmouth. Their supposed destination

is Spain. It is confidently stated that a French army will march into Spain, and an English fleet will co-operate in aid of the Queen Regent.

THE NEW BRITISH MINISTRY.-The London Spec tator thus divides and describes the New Cabinet :

The following may be reckoned Liberals-Lord Althorp, Mr. Elliec. Mr. Spring Rice, Lord Duncannon, Sir John Hobbouse: M. Abercromby, Mr. Charles Grant, And surely we may add Lord John Russell. Then follow the Whigs-

Lord Lansdowne, Lord Melbourne, Lord Carlisle. Lord Auckland. Lord Holland,

Two still remain, who may fairly be presumed to go along with the majority, of whatever complexion the policy of that majority may happen to be. 'They

Lord Palmerston

Lord Brougham,

Of fifteen members, then, eight may be reckoned as Liberals. But we are unwilling to class Lords Melbourne and Holland, and even Lord Auckland, among the Obstructives. Perhaps it will appear that they have sided with Earl Grey more from personal feeling than a sincere approbation of his recent policy. As for Lord Carlisle, we presume that he is a Whig but he never opens his mouth in Parliament, and his official acts are utterly unknown to the public, who pay for the honor of his countenance in the Cabinet. The Marquis of Lansdowne leans staunch to Toryism; and Lords Brougham and Palmerston are state men who will never, if they can help it, abandon their Sovereign's service. The result, however, is, that at the worst, the Liberals, if they are true to them selves, can outvote their opponents united; and the fact of theirs being the popular party, will always give them vast additional influence. It is plain, therefore, that Liberalism has been advanced by the The additions to the Cabinet are like wise worthy of praise. Every one speaks well of Lord Duncannon. He is beloved in Ireland, and esteemed everywhere, as an upright, amiable, and clearheaded, though by no means brilliant, person. Mr. O'Connell, and the Irish members generally, are pleased with this appointment. Sir John Hobhouse

is well known as clever, accomplished, and industri-

ous. His powers of speech will be of service in de bate; and will be much needed, for the crack orators are all on the Opposition benches. Sir John has now

whether he will make a good use of it.

The sepect of affairs has, we are inclined to hope. teen considerably improved. The Cabinet contains, it is true, no person of first rate abilities, except the Lord Chancellor, who cannot be relied upo But, on this account, they must be the more pains taking, and adhere the firmer to sound principles: the public cannot be dazzled by the brilliancy of their talents, and must be conciliated and won o. ver to their support by the excellence of their

TRADE WITH SPAIN AND THE SPANISH COLONIES. It will be remembered that at the late session of Congress an act was passed to countervail the beavier duty to which in Cuba, and we presume other Spanish possessions, produce in American bottoms is subject, as compared with the same produce in Spanish bottoms. This appears to have been a measure provident of the future, as well as applicable to the then existing state of the trade, for, according to the information contained in the annexed extract of a letter from Madrid, under date of 9th July, to the London Times, the discrimination between produce carried in Spanish or foreign vessels, is to be still further increased. We give the extract :

The first commercial measure of the new Minister of Finance has no tendency to strengthen or confirm the opinions entertained in foreign countries of the liberality of his administration. In spite of the more extended views of his Under Secretary of State, the late Intendant of the Havana, he has yielded to the clamor of the corn-growers of Custile, and has considerably altered the amount of difference in discriminating duties on the importation of flour into Cuba, to the prejudice of the colonists as well as the United States of America.

According to the new tariff, Spanish flour, in Span ish bottoms, is to pay \$2 per barrel; Spanish flour, in foreign bottoms, \$6 per barrel; foreign flour, in Spanish bottoms, \$8 1.2 per barrel; and foreign flour in foreign bottoms, \$9 1-2 per barrel, with the addition in the three last cases of the derecho de This arrangement, if it does not produce a revolution in the island of Cuba, will only owe its harmlessness to the impossibility of carrying it into execution, for there can be no doubt that in the face of so enormous a difference, the contraband trade from the North American Continent must become still more flourishing than it is at present, even if the Government of Washington did not succeed by retaliatory measures in bringing the Madrid Cabinet to

FOREIGN ITEMS-Regal Rites .- From the Bengal papers we learn that the King of Ava, his Queen, and Court, and indeed the country generally, were engaged in a grand public entertainment, which was to last forty-nine days, on the occasion of the daughter of the royal pair having her ears bored!

Madame Malibran has recently entered into an engagement with the Milan opera for five years According to its tenor, she receives a house, a table with six covers, an equipage, and fourteen thouand pounds.

Under the empire (says The Cosaire) we built barracks; under the restoration churches; under the royalty of the people prisons. At this moment three are in course of erection at Paris.

The Emperor of Russia has granted a pension of 3000 florins to the celebrated Polish actress Madame Josephine Ledochowska.

The London Gazette of the 1st inst. contains notification from the Lord Chamberlain, that each person upon being presented to the King, is to kneel apon the right knee, and kiss his Majesty's hand, then bow and retire. This, however, only extends to British subjects : foreigners are exempt from such

The grand festival at Westminister Abbey con cluded on Tuesday week, when their Majesties atended as before, in state. The performance was the Messiah, and passed off well. It is said the receipts will amount to £20,000.

The proceeds, after deducting some 7 or 8000l. for

an opportunity of recovering the false step which ru-ned him in Westminster: it remains to be seen ties connected with musical societies. No part, it is added, by way of a slap at the motives of an amaeur nobleman and performer, who was conspicuous n gotting up the festival, will " drop into the pocket of Lord Burghesh."

The number of persons who have sailed from the port of Liverpool as emigrants to the United States and the British colonies, during the quarter ending the 30th of June last, is 11,625.

A Rich Cargo.-The ship Sarah, the first free trader from China, arrived at London in July with a cargo of raw silk valued at £400,000, or \$1,800,000.

Paris improvement.—According to the plans agreed upon for improving the city of Paris, houses covering 159,814 square toises of ground are to be pulled down. The average price paid for the ground pulled down. The average price paid for the ground during the last ten years has been 2,300t. a toice, and as the annual expenditure for this purpose is only 1,200,000f., it will take at this rate three hundred years to complete the undertaking.

Strange Sale.—The following advertisement is seriously said to be from a Newfoundland paper: — "Auction—To-morrow, at 12 o'clock in the forenoon, if not previously redeemed, at the house now occupied by Mrs. Traverse, the under-mentioned articles, taken by distress for rent, due from the Legislative Assembly of Newfoundland to the subscriber, viz.':-One large desk, containing eight drawers, filled with a variety of books and papers of every description; one small ditto, used sively by the Speaker, and filled also with books and papers, and a portfolio of great value; the Spea-ker's chair, stuffed and elegantly covered with blue moreen, and mounted with brass; one large chair, stuffed and superbly covered, and well and substantially built, used by the Usher of the Black Rod! A cocked hat, of superior quality, but now a little shabby, worn by the Serjeant-st Arms!! The Reshabby, worn by the Serjeant at Arms!! The Re-porter's desk; two large stoves with funnelling, and six covered forms; with a variety of other articles, too tedious to mention—all very valuable. Terms made known on the day of sale.—Mary Traverse.'

New Comet .- On the 8th of April, it is stated, Professor Gambart, at Marseilles, discovered a new comet, of a pale light color, with a diameter of four or five minutes. Owing to the state of the atmosphere, and its disappearance on the 13th, little has been ascertained of the stranger, except that on the 10th, 16h. 33m. 45s. sidereal time, its right as-cension was 20° 9' 7", and the south declination

Purification of Smoke .- Several German publications contain allusions to a discovery of a new and certain method of remedying all the evils and incon-veniences occasioned by smoke in great towns, made by a Saxon architect named Bernhardt. Though the means by which this important object is accomplish. ed are not explained, the investigation the subject has undergone, and the evidence afforded by public auhorities and private individuals in Prussia, where the discovery has been practically applied, seem to leave no doubt as to the successful result of the experiments. In the Polytechnisches Journal, published at Stutgard, there is a report on the discovery drawn up by Herr Schaffer, Professor of Architecture at Dusseldorf, where the first experiments were It seems that the heads of the Prussian Postoffice have established an extensive manufactory for mail-carts and carriages at Dusseldorf. The smoke of this manufactory greatly annoyed the inhabitants of the neighboring houses, and the soot which fell destroyed their garden grounds. The Government spared no pains or expense to correct the evil. The Prussian Consuls were directed to inquire into the methods practised in England in such cases, but the remedies resorted to in this country were tried in vain. Actions were brought against the Post-office Department, and Government was on the point of removing the manufactory, when Re-ron Von Nagler, the Prussian Postmaster General, applied to Herr Branhardt, who, by a chemical p cess, separates the soot from the smoke, directs the ascent of the latter in a perfectly purified state, and makes the former descend in a manner which keep the chimnies clean, and is a security against their taking fire. His labors were immediately successful. There are testimonials of equal success having attended his labors in the palace at Berlin and in different public offices; but what is not a little remarkable is, that the discoverer should be able to keep his method a secret, notwithstanding so many instances of its application, and the very obvious na-

ing some days ago the testamentary Preface to these light till after the author's death.

preface; but either the vanity of the author is impatient, or the solicitation of friends is irresistible for some fragments of these Memoirs have appeared in the Revue de Paris. Of one of these we borrow a translation from Blackwood's Magazine.

[From the Memoirs of M. de Chauteaubriand.] Europe is hastening to a democracy. France is nothing else than a republic clogged by a director Nations have grown out of their pagehood. Arrived at their majority, they pretend to have no longer need of tutors. From the time of David to our own need of tutors. From the time of David to our own times, kings have been called—nations appear now to be called in their turn. The brief and unimportant exceptions of the Grecian, Carthaginian, and Roman republics, do not alter the general political fact quity, that the state of society was monarchical all over the globe. But now society is quit-ting monarchy, at least monarchy, such as it has been understood till now.

"The symptoms of social transformation abound It is in vain that efforts are made to recognize a party for the absolute government of a single manelementary principles of this government no lon-ger exist—men are changed as much as principles Although facts seem to be sometimes in collision, they concur nevertheless in the same result; as in a hine, wheels which turn in opposite directions

produce a common action."

"But sovereigns, submitting themselves gradually to the necessary popular liberties—detaching themselves without violence and without shock from their pedestals, may yet transmit to their sons, for a period more or less extended, their hereditary sceptres, reduced to proportions measured by the law. France would have done better for her happiness and independence had she preserved a child who could not have turned the days of July into a shameful ception; but no one comprehended the event. Kings are bent obstinately on guarding that which they cannot retain. Instead of descending gently on an inclined plane, they expose themselves to fall into a gulf—instead of dying gloriously, full of honors and days, monarchy runs the risk of being flayed alive—a tragic mausoleum at Venice contains only the skin of an illustrious general."

"Even countries the least prepared for liberal in-stitutions, such as Spain and Portugal, are urged for-ward by constitutional movements. In these counence. France and England, like two enormous bat-tering-arms, strike with redoubled strokes on the crumbling ramparts of the ancient society boldest doctrines on property, equality, and liberty, or property, equality, and therety, are proclaimed from morning to evening in the face of monarchs trembling behind a triple hedge of suspected soldiers. The deluge of democracy is gaining on them. They mount from floor to floor from the groend floor to the top of their palaces, whence

will throw themselves struggling into the wave which will overwhelm them."

"The discovery of printing has changed all social conditions—the press, a machine which can no lon-ger be broken, will continue to destroy the old world till it has formed a new one. Its voice is calculated for the general forum of all people. The press is nothing else than the word, the first of all powers—the word created the universe. Unhappily the word in man participates of the human infirmity—it will mix evil with good, till our fallen nature has reco vered its original purity."

"Thus the transformation brought about by the age of the world will have place. All is calculated in this plan. Nothing is possible now except the natural death of society, from whence will spring the regeneration. It is impiety to struggle against the angel of God, to believe that we can arrest Provi-Perceived from this height, the French revolution is only a point of the general revolution— all impatience should cease—all the axioms of an-cient politics become inapplicable.

onis Philippe has ripened the democratic fruit half a century. The Bourgeois soil in which Philippism has been planted, being less worked than the military and popular soil, furnishes still some juices to the vegetation of the government of the 7th August; but it will be soon exhausted.

gust; but it will be soon exhausted.

"There are some religious men who are revolted at the bare idea of the actual state of things having any duration, 'There are,' say they, 'inevitable reactions, moral reactions, instructive, magisterial,

Memoirs of M. De Chateaubriand—In publish good days ago the testamentary Preface to these emoirs, we mentioned that they were not to see the ght till after the author's death.

This was the express resolution announced in that reface; but either the vanity of the author is impossible to the second days ago the testamentary Preface to these green fruit—detachs paid for the despotism of Louis XIV, and the corruption of Louis XI moment redeems no one—the tears of tear, which moisten merely the bosom, fall not upon the conscience. What! shall the race of Orleans reign by right of the vices and crimes of their ancestors? Where, then, is Providence? Never could a more frightful temptation come to unseat virtue, to accuse eternal justice, or insult the existence of God, than

such a supposition "I have heard these reasonings made, but must we thence conclude that the sceptre of the 7th Au. gust is to be broken immediately? No.. Raising our view to universal order, the reign of Louis Philippe is but an apparent anomaly, but an unreal in-fraction of the laws of morals and equity: they are violated, these laws, in a limited and relative sense, but they are observed in a sense unlimited and gene ral. From an enormity consented to by God, I shall deduce a consequence still weightier—I shall deduce the Christian proof of the abolition of royalty in France. It will be this abolition itself, and not an individual chastisement, which will be the expiation of the death of Louis XVI. None shall be admitted, after this just one, to cincture his brow solidly with the diadem--from the forehead of Napoleon it fell in spite of his victories, and from that of Charles X. in spite of his piety! To finish the disgrace of the

crown in the eyes of the people, it has been permitted to the sin of the regicide to sleep for a moment in mock kingship in the bloody bed of the martyr. "Another reason, taken from the category of hunan considerations, may also prolong, for a short time more, the duration of the sophism government

struck out of the shock of paving stones

"For forty years every government in France has perished by its own fault: Louis XVI could twenty imes have saved his crown and his life; the repub tic succumbed only by the excess of its crimes Bonaparte could have established his dynasty, but he threw himself down from the pinnacle of his glo-ry; but for the ordinances of July, the legitimate throne would be still standing. But the actual government will not apparently commit the error which destroys—its power will never be suicidal—all its skill is exclusively employed in its conservation—it is on intelligent to die of folly, and it has not that in it which can render it guilty of the mistakes of genius, or the weaknesses of virtue.

"But, after all, it must perish. What are, then four, six, ten, or twenty years in the life of a people? The ancient society perished with the Christian policy from whence it sprung. At Rome, the reign of a man was substituted for that of the law by Cæsar; from the republic was the passage to the empire.-Revolution, at present, takes a centrary direction the law dethrones the man: from royalty the transi-tion is to a republic. The era of the people is re-turned—it remains to be seen how it will be filled. "But first, Europe must be levelled in one same

system. A representative government cannot be supposed in France, with absolute monarchies around To arrive at this point, it is but too probable that foreign wars must be undergone, and that, in the in terior, a double anarchy, moral and physical, must

be traversed.
"If property alone were in question, would it not be touched? would it remain distributed as it is? A society, or individuals, have two millions of revenue, whilst others are reduced to fill bags with heaps of putretaction, and to collect the worms from the -which worms, sold to fishermen, are the only means of existence to their families, themselves at origines of the dunghill: can such a society remain stationary on such foundations, in the midst of the progress of ideas?

"But if property is touched, immense disor der will result, which will not be accomplished with out the effusion of blood; the law of sacrifice and of blood is everywhere: God delivered up his Son to the nails of the cross, to renew the order of the universe. Before a new right shall spring from this chaos, the stars will often have risen and set.— Eighteen hundred years since the promulgation of Christianity have not sufficed for the abolition of slavery; there is still but a small part of the evan-gelic mission accomplished.

Its laws are to me unknown. I cannot conceive it, any more than the ancients could conceive the sociany more than the ancients could conceive the social transfer and the christianity. How ety without slaves produced by Christianity. How will fortunes become levelled? How will labor be will fortunes become levelled? How will labor be balanced by recompense? how will the woman arrive at her complete emancipation? I know not.—Till now, society has proceeded by eggregation and by families: what aspect will it offer, when it shall be merely individual, as it tends to become, and as we see it already forming itself in the United States? Probably the human race will be aggrandized, but it is to be feared that man will diminish—that the eminent faculties of genius will be lost—that the imagination, poetry, the arts, will die in the narrow eminent faculties of genius will be lost—that the imagination, poetry, the arts, will die in the narrow cavities of a bee-hive society, in which every individual will be no more than a bee—a wheel in a machine—an atom of organized matter. If the Christian religion should become extinct, man would arrive, by liberty, at that social petrifaction which China has arrived at by slavery.

"Modern society has taken ten centuries to arrive at its consistency. At present it is in a state of decomposition. The generations of the middle age were vigorous, because they were in a state of pro-

decomposition. The generations of the middle age were vigorous, because they were in a state of progressive ascendency; we are feeble, because we are in a progressive decent. This descending world will not resume its vigor till it has attained the lowest grade, whence it will commence to reascend towards a new life. I see, indeed, a population in agitation, which proclaims its power, exclaiming,—'I will—I am; the future belongs to me—I have discovered the universe. Before me nothing was known—the world was waiting for me—I am incomparable—my ancestors were children and idiots.'

But have facts answered to these magnificent ds? How many hopes in talents and characters e failed! If you except about 30 men of real words? have failed! merit, what a throng have we — libertine, abortive, — without convictions, without faith, political er rewithout convictions, without tails, pointed or religious, and scrambling for money and place like
mendicants for a gratuitous distribution: a flock
which acknowledges no shepherd—which runs from
the mountain to the plain, from the plain to the mountain, disdaining the experience of their aged pastors
—hardened to the wind and to the sun! We, the pastors, are only generations of passage—intermediate generations—obscute—devoted to oblivion—forming the chain reaching only to those hands which will pluck the future. ill pluck the future.

"Respecting misfortune, and respecting myself-

respecting the cause which I have served, and which I shall continue to serve at the sacrifice of the repose due to my age, I fear to pronounce, living, a word which may wound the unfortunate, or even de-stroy their chimeras. But when I shall be no more, my sacrifices will give to my tomb the privilege of aking the truth; my duties will be changedspeaking the truth; my duties will be changed—the interest of my country will prevail over the engagements of honor from which I shall be freed. To the Bourbons belongs my life—to my country belongs my death. A prophet, in quitting the world, I trace my predictions on my declining hours—light wither-ing leaves, which the breath of eternity will soon

have blown away.
"If it be true that the lofty races of kings, refu ing enlightenment, approach the term of their power, were it not better, and more in their historic interest, that they should, by an end worthy of their granest, that they should, by an end worthy of their grandeur, retire into the sacred night of the past with bygone ages? To prolong life beyond its brilliant illustration is worth nothing. The world wearies oyou and of your noise. It owes you a grudge for being there to hear it. Alexander, Casar, Napoleon, have all disappeared according to the rules of glory. To die gloriously, one must die young. Let it not be said to the children of the spring,—'What; is there still that name of past renown, that person, that race, at whom the world clapped its hands, and for whom one would have paid for a smile, for a look, for a hair, the sacrifice of a life!' How sad it is to see Louis XIV, in his old age, a stranger to the rising generation, and having none about him to speak to of his own age, but the aged duke of Villeroi! It was the last victory of the great Condé in hie second was the last victory of the great Condé in his sec childhood, to have met Bossuet on the borders of his second grave; the orator re-animated the mute waters of Chantilly—the superanuation of the old man so impregnated with his addescence—he re-ambrowmed the locks on the front of the conqueror of Rocroi, by hidding an impured edien to his area being the "These calculations go not quick enough for the impatience of Frenchmen. Never, in the revolutions they have made, have they admitted the element of time; this is why they will always be disappointed by results contrary to their hopes. Whilst they are disordering, time is ordering; it puts order

NEW-YORK AMERICAN.

AUGUST 24-29, 1834.

REVIEW OF THE WEEK.

HISTORY OF THE AMERICAN REVOLUTION, with Preliminary Review of the Character and Principles of the Colonists, and their Controversies with Gree Britain. 1 vol. Baltimore: Cusning & Sons Though given to the world anonymously, this vo lume is understood to be from the pen of Mr. Wilon, the accurate and intelligent Editor of the Baltiore American. Those who have been in the habit of remarking, and profiting-as we frequently doby the clear and well-condensed summaries of poli tical and literary intelligence, which appear from time to time in that paper-will find in this historical ab stract of the American Revolution, the same clear ness of perception and statement, which, omitting matter less essential, presents, in a plain and popu lar form, all that is material and of enduring value whether for warning or for imitation.

It is an original work wholly-that is to say, the author, after examining and comparing the histories and memoirs already extant, gives his own views, in his own language, of men and events. The preliminary View will, we think, add to the value of the work, for those especially for whose use it is particularly designed—the young.

A LECTURE ON MONEY AND CURRENCY, &c. &c. by Wm. REID. New York: Wm. STODART .- This well printed pamphlet contains the whole Lecture, of which some weeks ago we published a considerable part, delivered by Mr. Reid in Philadelphia. We spoke, at the time of making this extract, in terms of high commendation of this Lecture, and have only now to repeat, that it may be read with advan tage even by the instructed, and certainly with much greater advantage to those who, desiring to know re yet little informed, about the questions connected with the important, the difficult subject of currency. In an Appendix, the gold bills, passed at the last ses sion of Congress, are published, as also the tables, drawn up by Mr. Reid, and which appeared in this pa per, presenting at one view the comparative value of all the foreign gold coins which are legal tenders.

THE MOTHER's FAIEND, or Familiar Directions for Forming the Mental and Moral Habits of Young Children : New York ; LEAVITT, LORD & Co .- This little volume is another in what is called "Abbott's Series," all deveted to the improvement and right in. struction of youth.

The author of this admirable little treatise which is mainly a republication, as we find from the American editor's notice, of an English work, though different in form from the original, and with considerable modifications and additions appears to bend we do not doubt is -a woman, and a mother. There must of course, in such a work, be much the all parents, of well regulated and reflecting minds have themselves considered; yet even to such, there are views presented in this volume, and counsels given, that will well repay perusal; while, to young mo thers, it will be alike new and valuable.

The annexed extract is sensible, and the las paragraph but one specially deserving of attention :

But, (it may be said,) granting that parents are all sp can desire, how is it possible to guard children om the evil influence which the example and conversation of others may create? And, unless you banish them entirely from the society of your friends and acquaintance, how can you prevent the impressions they may receive from worldly and puerile observations? We reply, these impressions are casual and transitory; the sentiments and behavior of pecasional visiters are not often the subjects which ttract the attention of very young children. They idept, from sympathy, the feelings of those they ove; and they scrutinize instinctively the characters adopt, from sympathy, the teelings of those they still doubted, and supposed some accident must have love; and they scrutinize instinctively the characters and opinions of those on whom they depend, often ing-master of the ship, the ship's sextant, and took and opinions of those on whom they depend, often ing-master of the ship, the ship's sextant, and took only that they may avail themselves of the weak a new series of observations; the result of which it, and keeps its faculties, like so many arms at

Supposing, however, that the conversation of your young friends and acquaintance is decidedly of a kind you wish your children not to hear, you will do well to keep them away, while such acquaintance are with you. Gradually, as they become older, the danger will lessen, provided that you encourage in your children habits of the most unreserved openness and confidence with yourself. Lay yourself open to your children, heart and soul, as much as rible can; this is a point of the most vital ortance.

Let your own principles be founded on the one un erring standard of truth, and let your own conduct e firm and uncompromising; and let your children, as early as possible, read your genuine feelings, and see clearly the motives by which your conduct is re-Then you may fear less from the occa onal inconsistencies and deviations from what is right, which all must be exposed to meet with in after life. If you are open with your children, they will return this openness. When they observe in others a conduct resulting from want of principle, they will communicate to you their surprise or indig-nation. Here will arise a case in which you must exercise your judgment and discretion.

You must, by no means, indulge in the habit censuring and criticising the conduct of others. Let them see that whenever you think there is a right or wrong, the opinions, or examples, or the ridicule of others, has not the slightest effect on your own conduct, but refrain from judging and blaming others

except in cases of flagrant immorality.
Your children, while they know that the word of God is the standard by which you judge of yourself, and by which you endeavor daily to improve your own life, will not fail to remember, that in that word, you are directed not to judge others, lest you should yourself be judged, and thus will their earlies associations tend at the same time to lay the founda tion of rigid virtue, and tender charity.

U. S. MILITARY AND NAVAL MAGAZINE, for August : Washington, B. Homans .- We find much improvement, and more character and variety than usu al, in this number, and look upon it as decisive that the two Services this periodical is devoted to illus trate, are giving it their active aid and countenance.

Among the articles which fixed our attention, is a letter signed " A Lieutenant of '16," addressed to Mr. Rush, in explanation of a fact stated in that gentleman's "Residence at the Court of London" namely, that in going out from the Chesapeake. ound to Portsmouth, in the Franklin 74, they made the island of Bermudas. The singular circumstance of a ship bound from the Capes of the Chesapeake to England making the Bermuda Islands, as recorded by Mr. Rush, and dwelt upon by this writer, will doubtless attract the attention of nautical men; but the part of the letter which surprizes us, is that we copy,-implying, as it seems to do, extraordinary and almost incredible negligence, or want of skill, in the navigation of an American line of battle ship.

Previous to my being ordered on board the Frank. lin 74, I had had two years drilling among the cur-rents of the Gulf of Mexico, and it was there I learned the important axiom to distrust the log. the apposite one, "to rely upon the heavenly bodies as the seaman's surest guides." Governed by these feelings, I felt a degree of uneasiness and restless ness at being so long without an observation, knowing, as I welldid, the ship had been operated upon by currents; supposing, however, with all the other officers, that she had been swept to the N. E., and consequently not dreaming of Bermudas, which was reason to believe was some two hundred miles to the south of us.

On Friday night, at 10 o'clock, the weather began to clear up, and the north star became visible. Being possessed of an excellent sextant, I proceeded quietly and alone to measure a series of altitudes for the latitude. The horizon was well defined, and the observations were carefully and correctly made.— The calculation performed, I found, to my infinite surprize, the true latitude to be 32 degrees 54. I doubted the result. New and more complex series of altitudes were observed with the same result. I

was still the same: at noon we were in longitude 66 degrees 10', which, brought down to the time of observation, gave 65 degrees 56'. Here it is apparent, if the longitude was to be relied on, we were in a singularly dangerous position; at 10 o'clock in the evening, scarcely a degree from the most dangerous reef in the world, and steering directly for it. It is easy to calculate how many hours would also us there with no ordinary breaks and it did not place us there with an ordinary breeze, and it did not take much to send the Franklin ten knots. Having satisfied my own mind conclusively as to the latitude, and apprehensive that the longitude might prove cor-rect, I communicated to Capt. Ballard the facts which I had ascertained. My report was not considered by him worthy of notice; indeed I was treated as a tyro; one whose remarks and observations were not worth listening to. It was in vain that explanations were attempted—in vain I represented the danger. Seement produced no effect, I ing clearly that my state ok a very decided and hazardous step, for a young officer, to appeal to the commodore. Cor S. was sought in the cabin, and the same facts com-municated to him. He listened attentively to my representation, examined the matter carefully, incredulously; felt assured there must be some ror: pointed my attention to an error in one of the additions of the polar tables, the uncertainty of night observations, &c.; to all which I replied, that I had had two years drilling in the Gulf of Mexico, as first lieut. of a gun brig; that I had been in the constant practice of night observations, and that practice produced correctness; I therefore would wouch for the latitude. As it regarded the longitude, we had no better data for its correctness than the log; but respectfully submitted whether, under such circuit stances, to run upon the threatened danger would not be imprudent. Though I felt sure that he unconvinced, yet, acknowledging the force of the last argument, he went himself upon the deck and gave orders that the ship should not go faster than at a certain rate per hour until daylight, and the ship accordingly was restrained to the velocity of four miles per hour, as the log book indicates. The whole distance sailed from 10 P. M. to noon the fo lowing day, when we saw first the breakers and North rock ahead, and shortly after the islands of Bermudas, was fifty-five miles. Here then was a singular confirmation not of the latitude, for that I knew could be confirmed, if the sun were visi meridian, but of our longitude by dead reckoning; and I now avow my surprize-operated upon as the ship was by strong, and, as we have reason to believe, opposing currents—that a calculation of the courses and distances steered, should still give the true longitude of the ship. Yet such is the truth, and for which I do not perceive any juster mode of at of the stream. accounting, than that the N. E. curre if any, was precisely counterbalanced by the southwest reflow on the inner and outer edge, and all the subsequent current setting a due south course. This esteem to be the veræ cause of the great aberration from the intended course. After this statement I am sure you will acknowledge the incorrectness of the tion made by you, that to the surprize of all on board, we made the land. For myself, I must say, that had not the latitude at noon verified the observations of Polaris, I should not only have been sur. prized, but mortified.

THINGS AS THEY ARE, OR NOTES OF A TRAVELLER THROUGH SOME OF THE MIDDLE AND NORTHERN STATES, 1 vol. New York : HARPER & BROTHERS .-We have here the notes of a shrewd, observing, and intelligent man, who scans closely, and relates, with a dash of quiet humor, all that passes before him.

He is not censorious, nor-though his notions are ometimes, or will at least by many be thought so, a little queer-is he disposed to find fault. He is evidently a native, and a Yankee-two letters of recommendation. He neither adopts nor rejects customs nor opinions blindly, but gives frankly his reasons with his judgments.

We present the following extract, as a fair specimen of the descriptive powers and meditative tone of the writer.

When we observed the movements of men near at hand, the motives of their exertions and the results in which they end eften excite our laughter; white if we contemplate them from a distance, and espe-cially in large bodies, there is often something impressive and even exalted in the emotions which we ex-perience. The very greatness of the mass, like the

ment in deeper investigations and new com-ns, which, in the case of a subject abounding in such self-contradictions and unreasonableness as man, must inevitably lead one to pity and unother to ridicule. Historians and warriors understand this matter, and endeavor to keep the eye of the world or of posterity fixed upon mea in masses, or on individuals at a distance. They often obscure, conceal, patch up, or pervert the truth, by representing the individuals in any thing but their every-day dress.

There is much that is ludicrous in the motley

in

for uld

by th

re

1

ig re

crowds rushing through Broad-ay at different hours; but when the city is seen in one view, the sight is a solemn one. If you are called to depart, or if you by chance arrive, in the dead of night, the vacancy and silence of the streets are exceedingly impres-sive. Two hundred and forty thousand people obey the laws of nature at least in repose. The dead of night, strictly speaking, lasts but a very short time in the principal thoroughfares; for th termination of the play at about twelve, and of fash able parties at one, keeps up a rumbling of car riages for an hour or two, until the most remote routes have been performed, and the horses returned to their stables. After this is over, half hours and even hours of almost total silence sometimes intervene, while the watchman, in the dome of the City Hall, proclaims to the ears of the sick and the watchful that another day is approaching, whether de-sired or apprehended by them.

A cannon is fired at break of day on Governor's

Island; but before this the lines of milk, bread, and butcher's carts are in motion, and some come rat-tling down the island from above, while others are collecting at the ferries on the Long Island and Jersey shores, and all are soon dinning the streets. From the heights of Brooklyn you may hear their rattling, increasing from the feeble beginning, until, joined by the drays proceeding from the north to the south part of the city to their stands, it swells into an unintermitted roar, like the sound of Niagara at Queens ton, to stop not till midnight. Some time after day-light, while the lamps at the steamboat docks are glimmering, and those in the streets which, by mis-take, have had oil enough, the first smoke begins to rise from the houses of laborers in the upper wards. Some five or ten early risers are putting sparks to wood or coal; and their example is so contagious. that fires are speedily blazing in every house and al-most every chimney in the city. In the cold season this is a singular sight; and when the wind is from the south in the morning, the heavy cloud which generally overhangs the city is blown northward, feaving the Battery in the light of the aun, while many of the other parts are deeply obscured. Soon after sunrise, floods of daily emigrants from the upper wards, meeting at Broadway and Canal street, pour down to the wharves, the mechanics shops, and pour down to the wharves, the mechanics snope, and the houses in building, many of them with convenient little tin-kettles, containing their dinners and preparations for heating them, all bound to their work. Then come the clerks of all degrees, the youngest in an hour or therebouts. generally first; and these, in an hour or therebouts, give place to their masters, who flow down with more dignity, but scarcely less speed, to the counting-rooms of the commercial streets, hundreds of them, especially in unfavorable weather, in the omes, which render the street so dangerous now at three or four o'clock in the afternoon. Ere these crowds have disappeared, they become crossed and mingled with some of the fourteen thousand children who go the public and primary schools at nine, and an unknown number who frequent the pri-vate schools of all sorts. Then are seen also the students of Columbia College and the University, the medicals in winter hurrying to Barclay street lawyers, clients, and witnesses gathering about the City Hall, the Marine, and Ward Courts, with a set of spectators generally selected from those classes have been ruined by the same process which is about to be repeated in the name of the State.—
A burnt child dreads the fire, but a singed cat loves the chimney-corner.

The apple-women and orange-men at St. Paul's see a motley crowd passing from ten till twelve; and if it be a showery day, the shop-keepers have a of conversation with chance visiters atepping in for shelter. After this, if the sky permite, (for bad walking is but a small objection) the fashionable promenading begins; and the window-glass has full employment in reflecting the forms and colors of dresses which vary with the moon.—

hands, in a state of tension, which, if not distressing. The movements of the crowd are now at common is at least so tiresome as to remove all disposition time, instead of the double quick step by which the to ridicule. When we descend to some little subject, the mind finds its powers in a great measure unoccupied; and as this is an unnatual state, it seeks and wealth. But let him turn down almost any street which wealth. think that New York was a city of idlenese, gayety, and wealth. But let him turn down almost any street at the right or left, and enter some of the dwellings of the industrious poor, and he would find all were not rich or unoccupied; let him glance at the chambers of others, and he would be convinced that some are wretched and in want of all things. Yet he need not blame too severely the gay and young for being so regardless of the sufferers near them; they know not of their existence, or realize not their they know not of their existence, or realize not their own ability to aid them. All parents do not estimate the value of engrafting practical and systematic benevelence upon their plan of education, and rather teach their children by example to despise the poor, than to regard them as beings offering occasions of moral self-improvement to the rich.

But it would be too long to tell all the aspect and fluctuations of the currents for a single day in the capital, or even to trace the course of a sin drop, like myself, circulating one tour round the system. It is enough that the clocks and watches system. It is enough that the clocks and watches go on with their seconds and hours as if they marked no appointments for friendly or formal visits; no pe riods of payment, for persons who would prefer to keep their sixpences or their thousands; no departures or arrivals of cargues; no changes in stocks in short, as if prosperity or adversity, wealth or poverty, joy or disappointment, were not decided by every revolution of the hands for thousands of anx-ious individuals.

It is a solemn reflection, after the bustle has passed, and the traveller again contemplates empty streets and noiseless pavements, deserted stores a silent wharves, while weary bones are resting, the anxious busy at their dreams, and the sick and dy ing, or their attendants, alone conscious of the hour, that two hundred and forty thousand persons have spent another day. The time has rapidly passed spent another day. The time has rapidly passed but in it how many millions of property have changed hands; what applications of capital have been de termined upon, which will increase the comforts of whole districts of country; what plans have been devised by consummate commercial skill; how many a generous deed has been done with wealth honorably obtained; how many a piece of gold added to the nuser's hoard! In that short space of time how many a tear has been shed by parting friends; how many a smile made by those who have returned; how many a foreigner has first touched the soil of America; how many a traveller, like me, has closed

his visit to this busy city!

Tongue, illustrated by progressive exercises; by CHARLES H. LYON, one of the Classical Instructors in the Grammar School of Columbia College. New York: HARPER & BROTHERS .- This new grammar or rather Accidence-as in our younger days the elementary book of the Latin language was calledis, in the first place, very prettily printed, on very nice white paper: it is, too, accurately printed, and the marks of quantity are placed over syllables, so as to guide the eye even before the ear becomes instructed. We like it altogether much-but not without qualification. We object, for instance, to the change in the designation of the conjugations; which, instead of the old and universal first, second, third, and fourth, are called " Stem Conjugation, E Conjugation, A Conjugation, and I Conjugation." The reason assigned for this is, that the third conjugation, having e short before re and ris, as the old Eton gram. mar has it, is the oldest, and that from it the others are derived. On this ground it is called-at the suggestion doubtless of Professor C. Anthon, who is vouched as godfather for the new nomenclature - the Stem Conjugation : then follows the present second under the name of E Conjugation. The old first is degraded to third; and the fourth is as it was, only under a new name.

ver again a journey, never very inviting at In the present instance, we perceive no possible ad-vantage in the change, which seems founded in mere whim, or conceit, (in the Italian sense.)

The division of the long and short syllables in the "stem conjug ation," seems to us objectionable Leg-e, when the e is short, would be pronounce as it is intended to be, as though written with two g's; Leg-i, when the e is long, should, in order not to mislead the eye, be divided thus Le-gi.

Two OLD Men's Tales—The Deformed—The Admiral's Daughter—2 vols. N.Y.—Harper and Brothers .- From some similarity in the title, or rather from the introduction of the awkward, and to most, unwelcome monosyllables, "Old Man," in each, these thrilling and highly wrought tales have been ascribed to Sir Francis Head, the author of " The Bubbles, by an Old Man." We suspect erroneously, however; though they evince a power of language, and of delineation of character and pe one, that would not discredit the admira ble sketches of the Baden of Nassau.

The first story, the Deformed, is a short one, carcely filling more than half of a thin volume. The other occupies the remainder of the two vols and will be preferred. We will not give even a glimpse of either.

BOYS' AND GIRLS' LIBRARY OF USEFUL AND ENTER. TAINING KNOWLEDGE, Vol. XXI. N. Y .- HABYER AND BROTHERS .- We delight to meet again in this volume with Uncle Philip, whose contributions to this really useful and instructive Library, printing by the Harpers, are not its least attraction

When last we parted with Uncle Philip, it was after reading and warmly recommending his book on the Evidences of Christianity. We hear him now telling the story of the Discovery, Settlement, and History of Virginia, up to the period of the Declar ation of Independence. The marvellous adventures of Captain Smith-the romantic story of Pocahontasthe hardships and sufferings of the first Colonists combine to impart great interest to the History of Virgicia; and of this, none is lost in adapting the narrative to the comprehension of children, and ma INITIA LATINA, or the Rudiments of the Latin king it assume the form of dialogue. We agree with Uncle Philip, "that it is very important that all the boys and girls in America should know something about the early history of their own country;" and we hope, therefore, he will go on in providing them just such incentives to do so, as they will find in the History of Virginia.

> THE CONSTITUTION OF THE UNITED STATES IN GOLD LETTERS : C. C. Wright & H. Durand, N. Y .- We nentioned, last week, the beautiful copy of the Declaration of Independence which had just then been issued from the Xylographic press of Messes Wright & Durand, of this city; and now have be fore us, in the same style of beautiful printing and elegant ornament, the Constitution of the United States, with the amendments thereto that have been adopted. We wish this may be generally purchased, for the instrument cannot be too often in sight.

> Extract from one of Mr. Sharp's Letters, recently published in London,-

"There are few difficulties that hold out against real attacks; they fly like the visible herizon before those who advance. A passionate desire and an unwearied will can perform impossibilities, or what seem to be such to the cold and the feeble. If we do but go on, some unseen path will open among the hills.

We must not allow curselves to be discouraged by
the apparent disproportion between the result of single efforts and the magnitude of the obstacle to be It is always inexpedient, when obvious and urgent motives do not plead for it, to change old and well established designations. It is particularly so in school books, for this, among other reasons, that boys who have not studied the new book with the new have not studied the new book with the new names, are—if brought into a school where these are in vogue—nonplussed at the outset, and have to begin with the mountain to be levelled. All exertion, too, is in itself delightful, and active amusements seldom trie us. Helveius owns that he could hardly listen to a concert for two hours, though he could play on an instrument all day long. The chase, we know, has always been the favorite amusement of kings and nobles. Not only fame and fortune, but pleasure is to be earned. Efforts, it must not be torgotten, are as indispensable as desires. The globe is not to be circumnavigated by one wind. We should never do nothing. 'It is better to wear out than to rust out says Bishop Cumberland. 'There will be time enough for repose in the grave,' said Nicole to Pascal. 'As a young man, you should be mindful of the unspeakable importance of early industry, since in youth habits are easily formed, and there is time to recover from defeats. An Italian sonnet justly, as well as elegantly, compares procrastination to the well as elegantly, compares procrastination to the folly of a traveller who pursues a brook till it widens into a river, and is lost in the sea. The toils as well as risks of an active life are commonly overrated, so much may be done by the diligent use of ordinary op ordinary opportunities; but they must not always be waited for. We must not only strike the iron while it is hot, but strike it till it is made hot. Herschel, the great astronomer, declares that ninety or one hundred hours, clear enough for observations, cannot be called an unproductive year. The lazy, the disipated, and the fearful abould patiently see the active and the bold pass them in the course. They must bring down their pretensions to the level of their talents. Those who have not energy to work must talents. Those who have not energy to work must learn to be humble, and should not vainly hope to unite the incompatible enjoyments of indolence and enterprize, of ambition tand self-indulgence. I trus that my young friend will never attempt to reconcile them."

We add some others, addressed to a young man: Luckily you have not to overcome the disadvantage of expecting to inherit from your father an income equal to your reasonable desires; for though it may have the air of a paradox, yet it is truly a serious air of a paradox, yet it is truly a seriou disadvantage when a young man, going to the bar, is sufficiently provided for.

" Vitam facit beatiorer Res non parta, sed relicta,"

says Martial, but not wisely; and no young mai should believe him. The Lord Chief Justice Ken should believe him. The Lord Chief Justice Ken-yon once said to a rich friend asking his opinion as to the probable success of a son, "Sir, let your son forthwith spend his fortune; marry, and spend his wife's; and then he may be expected to apply with energy to his profession." In your case I have no doubts but such as arise from my having observed that, perhaps, you sometimes may have relied rather too much on the quickness of your talents, and too little on diligent study. Pardon me for owning this, and attribute my frankness to my regard. It is un-fortunate when a rean's intellectual and his moral a man's intellectual and his moral character are not suited to each other. The horses in a carriage should go the same pace and draw in the same direction, or the motion will be neither plea-

Buonaparte has remarked of one of his mar-shals, "that he had a military genius, but had not intrepidity enough in the field to execute his own plans;" and of another he said, "he is as brave as his sword, but he wants judgment and resources: neither." he added, "is to be trusted with a great command." This want of harmony between talents and the temperament is often found in private life; and wherever found, it is the fruitful source of faults and sufferings. Perhaps there are few less hap py than those who are ambitious without industry, who pant for the prize, but will not run the race. Now, this defect, whether arising from indelence or from timidity, is far from being incurable. It may at least in part, be remedied by frequently reflecting to the articles are the exercise held on on the endless encouragements to exertion held ou by our own experience and by example.

C'est des difficultés que naissent les mira-

It is not every calamity that is a curse, and early adversity especially is often a blessing. Perhap Madame de Maintenon would never have mounted throne had not her cradle been rocked in a prison Surmounted obstacles not only teach, but hearten u in our future struggles; for virtue must be learnt, though unfortunately some of the vices come, as it were by inspiration. The austerities of our northern

be thrown into the water who cannot swim: I know worth, adds that Lieut. McClure, of the dragoon your buoyancy, and I have no fears of your being drowned.

Another letter to the same young man has these nsible passages :

'If your low spirits arise from bodily illness (as is often the case,) you must consult Dr. Baillie. I can do nothing for you. Perhaps you should fast a little, and walk and ride. But if they are caused by disappointment, by impatience, or by calamity, you can do much for yourself. The well-known wornout topics of consolation and of encouragement are become trite, because they are reasonable; and you will soon be cured, if you steadily persevere in a course of moral alteratives. You have no right to be dispirited, possessing as you do all that one of the greatest as well as oldest sages has declared to be the only requisites for happiness-a sound mind,

a sound body, and a competence.

An anxious, restless temper, that runs to mee care on its way, that regrets lost opportunities too much, and that is over-painstaking in contrivances for happiness, is foolish, and should not be indulged "On doit être heureux sans trop penser à l'être."

"If you cannot be happy in one way, be happy er; and this facility of disposition wants little aid from philosophy, for health and good hu-mor are almost the whole affair. Many run about after felicity, like an absent man hunting for his hat, while it is on his head or in his hand. Though ometimes small evils, like invisible insects, inflict great pain, yet the chief secret of comfort lies in no suffering trifles to vex one, and in prudently cultivating an undergrowth of small pleasures, since ver few great ones, alas! are let on long leases. I cannot help seeing that you are dissatisfied with your occupation, and that you think yourself unlucky in having been destined to take it up, before you were old enough to choose for yourself. Do not be too sure that you would have chosen well. I somewhere met with an observation, which being true, is important—that in a masquerade, where people assume what characters they like, " how ill they often play them !" Many parts are probably preferred for the sake of the dress; and do not many young men ente into the navy or army, that they may wear a sword and a handsome uniform, and be acceptable partners at a ball? Vanity is hard-hearted, and insists upo wealth, rank, and admiration. Even so great a mai as Prince Eugene owned (after gaining a useless victory) that "on travaille trop pour la Gazette."— Such objects or pursuits are losing their value every and you must have observed that rank gives but little precedence, except in a procession.

even to hint at such But I am really ashamed endless, and obvious commonplaces, and I shall only repeat the remark, which seems to have struck you -that in all the professions, high stations seem to me down to us, rather than that we have got up to them. But you, forsooth, are too sensible to be bitious; and you are, perhaps, only disheartened by ome unforeseen obstacles to reasonable desires. Be it so! but this will not justify, nor even excuse, dejection. Untoward accidents will sometimes happen; but, after many, many years of thoughtful experience, I can truly say, that nearly all those who began life

with me have succeeded or failed, as they deserved.

"Faber quisque fortunæ propriæ." Ill fortune at your age is often good for us, both in teaching and in bracing the mind; and even in our later days it may be often turned to advantage, or overcome.— Besides—trifling precautions will often prevent great mischiefe; as a slight turn of the wrist parries a

SUMMARY.

"Our worst apprehensions, (says the National Intelligencer of yesterday) for the safety of the expedition to the far West, composed of the regiment of Dragoons, &c. already begin to be realized. Brigadier General LEAVENWORTH, who commanded it in chief, is no more—he died of bilious fever, at a place called Cross Timbers, on the 22d of last month; and one or two other officers are reported to be ill. 'The command, by the death of Gen. L. devolved on Gen. Dodge, the Colonel of the Dragoons. The first act of his command, we hope to learn, will have been shall await with anxiety further intelligence of its movements."

The brought the rabbit with him, and it was exhibited in front of the Tremont. The parachute is in the shape of a large umbrella.

It happened that every thing was in readiness for the ascension at an earlier hour than was anticipated and consequently the balloon started at half past 4 instead of 5 o'clock, as had been amounced In consequence of this, we regret to say that many ware too late to see the balloon at starting. were by inspiration. The austerities of our northern climate are thought to be the cause of our abundant comforts; as our wintry nights and our stormy seas have given us a race of seamen, perhaps unequalled, and certainly not surpassed, by any in the world.

"Mother," said a Spartan lad going to battle, my swerd is too short." "Add a step to it," she replied: but it must be owned that this was advice to be given only to a Spartan boy. They should not Dodge, the Colonel of the Dragoons. The first act

We have seen a letter dated Camp Washita, which describes the condition of the Dragoons as deplorable; the horses worn out, and disease among the men. Lieut. McClure, as well as Gen. Leaven worth, had died. There were 140 on the sick list. Col. Dodge has pushed on, on the 7th July, with 350 men, and no intelligence had been received from him up to the date of the letter we refer to

A single officer, and five men carrying the coffin, constituted the whole funeral escort of Gen. Leaven. worth.

The barque Mexican, which arrived at this port on Saturday from Vera Cruz, brought between \$90,000 and \$100.000 in specie.

lo

The Hon. John Branch has been elected to the Senate of North Carolina from the county of Halifax. It is not improbable, we think, that Mr. Branch may find himself a Senator in another body before he is six months older;—at least we will venture to predict such an event will not be prevented by the re-election of Mr. Brown, whose term in the United States Senate expires on the 4th of March next.

From the Boston Atlas.] [From the Boston Attas.]
Robert G. Davis, a youth born at the Sardwich Islands, and about 15 years of age—received the first medal and delivered the Valedictory address—at the recent examination of our Puclic Schools.

Presentation of Plate.—The passengers by the Columbus, from New York to Liverpool, have presented a superb piece of plate to Capt. Cobb, in acknowledgment of his gentlemanly conduct, his skill as a navigator, and the splendid manner in which he catered for them during the voyage.

Steamboat Disaster and loss of Lives .- The Cincinnati papers contain the following particulars of the accident to the steamboat Nimrod, which, on Saturday night, the 16th, at 9 o'clock, while bound down the river, ran aground on Quick Run Bar, ninety miles above Cincinnati. The connecting pipe between the boilers and cylinder immediately burst. Twelve persons, principally passengers, were scalded, eight of which have since died. The Helen Mar opportunely arrived shortly after the accident, and took the passengers on board. She arrived at our took the passengers on board. She arrived at our landing late on Sunday night, and her deck present-ed a melancholy spectacle of the dead and dying three or four deaths having occurred since her arrival. The names of those who have died, are Augustus Fromid, or Frown, wife and child, dead; they were citizens of Hamilton, Butler county, Ohio. John Botest, or Baptista, from Wheeling, dead. Our John Botest, or Baptista, from Wheeling, dead. Our fellow citizen, Mr. Aaron Valentine, city Councilman of the 4th Ward, was badly scalded, his wife slightly, and his child to death. Jane Ranaharn and child, dead, from Cumberland, Allegheny county. George Street, from Frankfort, Pa., and Washington Bishop, from Maryland, scalded, but not badly.

The Helen Mar brought the passengers of the Nimrod to our city. While we are writing this, the bodies of the dead are about being placed in their coffins. By some of the papers it is stated that the Nimrod ran on some stones which were thrown from

Nimrod ran on some stones which were thrown from flat boat about a year since in the river.

Boston, Tuesday, Aug. 26.—Mr. Duront's Ele-venth Ascension.—Yesterday afternoon, agreeably to previous notice, Mr. Darant made his eleventh grand ascension (it being his second from Boston,) from his amphitheatre on the city land west of Charles street. The day was pleasant, and the wind was blowing with a pretty strong breeze from the north.

Six o'clock. We have this moment the satisfaction of hearing of Mr. Durant's safe arrival with the balbot hearing of Mr. Durant's sale arrival with the bal-loon at the Tremont House, where he was welcomed by the shouts and congratulations of a large collec-tion of people. We learn that at 5 h. 6 ns. he land-ed safely in a field west of Mount Auburn, and about six miles from the Amphitheatrs. He was, therefrom his starting to his arrival at the Tremont House. He brought the rabbit with him, and it was exhib

people were too late to see the balloon at starting.

To enable such people to witness the operation, and to afford every body another opportunity to see the magnificent spectacle, it is hoped that Mr. Du-rant will undertake a third ascension from Boston.— As the balloon is uninjured, an early day would probably be convenient for the intrepid æronaut, as i would be desirable to our citizens generally.

Specie.—The amount of Specie ar from 28th March to 30th June was, From 30th June to 21st Aug. The amount of Specie arrived at this port, March to 30th June was, \$4,365,467 530.935

84,896,402

The vessels just arrived from Havre, bring a good deal of specie in five franc pieces.—[Journal of Commerce.]

[From the Albany Evening Journal.]
DEATH OF SENATOR HASBROUCK.—We find the following melancholy intelligence in this morning's Ar-

It is with deep regret that we have to announce the death of the Hon. Louis Hasshouck, a Senator in the Legislature of this State, from the fourth District.—He died of apoplexy, at his residence in Ogdensburgh, on the 20th inst. His loss will be severely felt in the councils of the State and in all the relations of life. Mr. Hasshouck was a most valuable citizen. He removed from Ulster County, at an early day, to Ogdensburgh, where for more than 20 years, he has been an able and respected member of the bar. He was a member of the Legislature in 1814.

CHARLESTON, Aug. 15th .- New Cotton .bales of the new crop were received this morning from Augusta, by the railroad, the same noticed in the Augusta Chronicle as having been raised on the plantation of Col. Paul Fitzsimon's and sold in that place, on the 12th inst. The quality is very good.—
Two of the bales are about to be shipped to New York—Parsiet! York .- [Patriot.]

NEW ORLEANS, AUGUST 9-A new Exchange We understand that at the monthly meeting of the Chamber of Commerce, held on Monday evening at their Chamber in Canal street, it was proposed and agreed to, that a committee be appointed to reand agreed to, that a committee be appointed to report to the next monthly meeting, the most eligible
site upon which to erect an Exchange in our city,
suitable to the great commercial interest of New
Orleans. The following gentlemen were appointed
as said Committee, viz.: M. Morgan, Thomas Barret, J. F. McKenna, John Garnier, H. C. Cammack.
This movement will meet the appointed

This movement will meet the approbation and concurrence of our whole community, unquestionably, and we hope lead to the erection of an edifice, such as proposed.

Bermuda .- Accounts from this Island to the 12th inst. have been received. On the 1st of August, the day on which the liberation of the slaves took place, divine service was held in the churches, and every thing was not only tranquil but solemn. Apprehen-sions however are entertained that the new freedmen will suffer for want of employment. The families had generally reduced the number of servants below umber of those they had held as slaves —[Gaz.]

See Serpent.—In the vicinity of Cape Rosier, near Castine, Me., a Sea Serpent was seen for several days during the first fortnight in July, by a large number of credible persons. When seen in the morning, he usually carried his head about twelve feet above water; but in the afternoon his head was not so much elevated. His rate when passing through the water was sometimes incredibly rapid, leaving a long "wake" behind. In one instance, he was seen at a distance by the crew of a fishing schooner off Cape Rosier, three of whom got into a boat and rowed towards him. When they had proceeded some distance from the vessel he came directly towards them, boldly, and after approaching within a rod, with his head elevated, he went below the surface and passed under the boat, being in plain sight as he passed. Two of the men had muskets loaded, which passed. Two of the men had muskets loaded, which they pointed at him as he approached; but his appearance was so formidable they thought it prudent not to fire unless he attacked them. He appeared to the attacked them at different times, not to fire unless he attacked them. He appeared to them, and to others who saw him at different times, to be about sixty feet long; and hence it may be inferred that there are several of these animals on our coast, as the serpent seen in this neighborhood has been often estimated by good judges to be nearly twice the length of that seen near Cape Rosier.

Another man who was taking fish out of the mesh es of a net at the Cape, observed some disturbance in the water, and soon after ascertained that the Sea Serpent was helping himself at the other end of the net. Not liking his company, the man hastily withdrew.—[Boston Daily Advertiser.]

APPOINTMENT BY THE PRESIDENT.—William Little field, to be Collector of the Customs for the District of Newport, Rhode Island, in the place of Christopher Ellery, resigned.

Officers attached to the United States sloop o var Erie, sailed for the Coast of Brazil.

war Erie, sailed for the Coast of Brazil.

John Perceval, Esq, Commander; Jas. Williams, 1st Liout.; John Pope, 2d do; Henry Eagle, 3d do; John E. Bishophain, 4th do; Chas. Chase, Surgeon; Grenville C. Cooper, Purser; Alfred Taylor, Acting Master; Jacob Zelin, Jr. Lieut. Marines; Ninian Pinkney, Assistant Surgeon; John A. Russ, passed Midshipman; John R. Tucker, do; Hendrick N. T. Dade, Thos. F. Davies, Carter W. Poindexter, Fred. A. Bacon, John L. Horden, Henry A. Warden, Nathan Harris, Geo. Wells, Midshipmen; Nathaniel B. Reed, Sailmaker; Edward Crocker, boatswain; David Marple, carpenter; Wm. Phillips, acting gun. David Marple, carpenter; Wm. Phillips, acting gun-ner; Daniel J. Browne, school master; David Sel-fain, assis't. clerk; Archibald A. Peterson, pursers

The following letter explains the changes, and the motives for making them, in the coinage of the new issues of gold.

MINT OF THE UNITED STATES

Philadelphia, 9th July, 1834. Sin: The certified copy of the Act relative to the Gold Coins of the United States, forwarded with your letter of the 7th, has been received.

In regard to your suggestion of affixing to the gold coinage, after the 31st inst. the date of the month, to designate the new coins from others of the current year, I have respectfully to observe, that for the purpose of such designation, the engraver has been di-rected to execute new dies, in which two improvements, contemplated for some years past, shall be in troduced; one is, the omission of the words "E plu ribus unum" on the reverse; the other is, the substitution of a new Head of Liberty without the dress cap—the hair being only restrained by the cincture bearing the inscription 'Liberty."

The cap has by many been regarded as intended for the classic cap of liberty, and under this idea has received tavor, as proper to be retained, even with some who have not been insensible that it impaired the beauty of the coin. I have, however, to remark, that the cap on our coins was not designed as the Liberty Cap. It was not introduced on the silver coins until about the year 1806, and was then copied from what was considered a handsome sp the female head-dress of that day. On the gold coins a cap had been introduced from the first, which has certainly some resomblance to the usual form of the Cap of Liberty. 1 am however satisfied, from several considerations, and indeed have the direct assurance of Mr. Eckfeldt, the chief coiner, who has been familiar with the whole subject from the first, that it was not so intended. When a cap was introduced, as before stated, on the silver coin, that on the gold was conformed thereto.

It is wholly at variance, with classic subjectives.

It is wholly at variance with classic authority to place the Pileus, or Liberty Cap, on the head of the figure representing Liberty. When it is introduced in statuary, or on a medal, or on a coin, it is found born e by Liberty herself on a wand, or in her hand, or appears at her feet, and indicates her as the beneficial being through whose influence the blessings of freedom are conferred on others: and such a cap, placed on a freed-man, we know from the Roman annals, was the insiguium of his

This view of classic propriety was, no doubt, very familiar to those under whose authority the first coinage of the United States commenced. The early copper coins bear the Cap of Liberty, but never on the head of the figure. The coinage of France of that period, presents also various pertinent examples int.

It may be sattsfactory further to remark, that after my appointment to the charge of the Mint, I addressed to Mr. Jefferson, who at the commencement of the Mint was a member of the Government, then resident in this city, an inquiry in regard to the authority on which the devices on our coins had been originally adopted, and particularly presented the question as regards the cap on the head of Liberty. His recollection, he informed me, did not reach the subject, and no notes had been preserved in regard to it; but he was direct and explicit as to the unfitness of placing the Pileus or Cap of Liberty on the head of the figure—adding, "for we are not emancipated

I have the honor to be, with great respect, &c.
SAMUEL MOORE.

Hon. Levi Woodbury, Secretary of the Treasury.

We regret to announce the resignation of the Hon-Rurus Choars, Representative in Congress from Sa-lem District. But we are happy to state that he is to become a resident of our own city, and devote himself to his professional pureuits.—[Boston Atlas.]

Yale College.—The annual Commencement of this Institution was celebrated at New Haven on Wednesday last. Number of graduates 64. The honorary degree of A. M. was conferred on Joshua A. Spencer, Esq. Rev. Erastus Cole, and Edmund J. Ives. That of D. D. on Rev. Andrew Reed, and Jas. Matheson, the English delegates, the latter of whom was present. That of LL. D. on Hon. Samuel A. Foot, Governor of the State, and Hon. Thomas Scott Williams, chief justice elect. On the day previous, at 11 o'clock, A. M. the annual eration before the at 11 o'clock, A. M. the annual eration before the Phi Beta Kappa Society was delivered by James A. Hillhouse, Esq. His subject was "the character and services of Lafayette." At 2 P. M. an oration was delivered before the Linonian Society, by Rev. W. W. Andrews of Kent, Conn. At half past 3, the usual Prize speaking by undergraduates. In the evening, the Society of Alumni held their annual meeting. An address was made by Losins Duncar Proing. An address was made by Lucius Duncan, Esq. of New Orleans. The Society has now a fund of between 3 and 4 thousand dollars, the increase of which they have resolved to apply for the support of a lecturer on Natural History. The lectureship is filled by Charles U. Shepard Esq.—[Journal of Com-

A QUARANTINE, as we learn by the Charleston Patriot of the 15th instant, was established on that day for all vessels, including steam packets, arriving from New-York. This, we are to presume, is an Anti-Cholera precaution

Tornado in Mass.—The Northampton, Mass. Gazette contains some particulars of the tornado in that vicinity, on the 14th inst. The length of its path, so far as yet heard from, was about 30 miles, passing through Peru (Berkshire County) Worthington, Cummington, Goshen, Williamsburg and Whately, (ell in Hampshire County) to Connecticut river. Its ourse was about due East.

In Cummington the width of the gale was from Half to three fourths of a mile. The barns of Oren
Tower, ——— Tower, Mr. Everett, Jesse Read,
Widow Scott, Stephen Shaw and Asa Bates were
blown down. Widow Scott's house was much injur-

All the timber on James King's farm was prostrated, two large sheds were destroyed and his house and barn injured. Joshua Hayden had 30 or 40 acres of heavy timber, but not a tree (except some small ones) is left standing on his farm, hardly an apple tree remains upright in his orchard, and all his rail

wood fence is gone. His house, barn, and cider-mill were damaged N. Warner, S. Shaw, Robt. Webster and others lost much valuable timber. The buildings and orchard of Nahum Bates were injured. Indeed, almost every

Much valuable timber. The buildings and orchard of Nahum Bates were injured. Indeed, almost every thing within the range of the tempest in Cummington was more or less injured. A cow belonging to Asa Bates was killed, and several persons lost sheep.—Some of the forest trees were torn up by the roots and others twisted off. The direction of the storm was from west to east, but many of the trees fell to the north, and some to the west.

In Goshen, Maj. Ambrose Stone had 15 or 20 acres of valuable timber destroyed; Mr. Narramore's barn was unroofed., and his house damaged. Capt. Narramore's timber and orchard were blown down; Hinckley Williams had one barn uncovered and the roof carried away; Wm. Packard's barn and Mr. Ti'lton's barn were destroyed; the congregational meeting house was partly unroofed; the Baptist meeting house was partly unroofed; the Baptist meeting house had several holes made in it by sticks of timber forced against it by the wind, and it is said the whole building was removed several inches.

[The old gentleman, who, with his grandson, was blown down a precipice in Cummington, was Mr. George Stearns, of Goshen. In the latter township, a man upon the road, was lifted from his wagon and

George Stearns, of Goshen. In the latter township, a man upon the road, was lifted from his wagon and carried senseless to the side of a wall. Upon recovery he found his horse and wagon in a neighboring corn field.]

We are informed that one house was demolished in

We are informed that one house was demolished in Peru, and another house and two barns much damaged. There was great destruction among the timber. It is reported that a house in the southern part of Windsor was carried away. Much damage was done in Whately and the north part of Williamsburgh, but we have not learned particulars. We are told that a man whose farm lies in Worthington and Cummington had a quantity of grain in the shock in hie field; and on examining the field the next morning, not a sheaf of grain could be found.

nary Meeting. Seven missionaries, being about to embark from this city for Smyrna during the present week, received their instructions on Sabbath evening, if the Essex street Church. The house was evening, in the Essex street Church. The house was full, and the services were very interesting and impressive. The instructions were read by the Rev. Mr. Wisner, one of the Secretaries of the American Bosrd of Eoreign Missions. Addresses were made by the Rev. Mr. Winslow, late Missionary to Ceylon, and Rev. Dr. Beecher; introductory prayer by the Rev. Dr. Jenks. Mr. Winslow's addresse was specially to the Missionaries, and was highly practical and to the point. He bade them discard all romantic ideas, and to expect discouragement and disappointment; cautioned them against indolence and self-confidence; and inculcated the virtues of humility, unity of spirit, cheerfulness, faith, patience, and perseverance. All his remarks were delivered in an affectionate manner, and an experience of fifteen years alundantly qualiand an experience of fifteen years abundantly quali-fied him to point out the difficulties of missionary life. Dr. Reecher remarked, that infidels reasoned correctly upon human principles, that we should not convert the world by sending out a few Missionsries, but they left out of view the Holy Ghost, which was promised by our Redeemer. The power of God was with the feeble arm of the solitary Missionary. He dwelt much upon the success which had crowned the cause, the revivals of religion as Missionary stations and at home, since the first five Missionaries were sent from this country. We had taken care of home, too, and had received back with interest the blessings we had poured upon for

The Missionaries are Rev. John B. Adger and wife, of South Carolina; Rev. Samuel R. Houston and wife, of Virginia; Rev. Lorenzo W. Pease nd wife, of the State of New York; and Rev. mea L. Merrick; a native of Massachusetts. Mr. terrick is designated to the Makomedans of Persia; Mr. Adger to the Armeniane, to reside at Smyrna or Gonstantinople; Mr. Heuston and Mr. Pease to the Greeks; the former to be stationed on the island of Scio, the latter on the island of Cyprus.—
They sail to morrow in the brig Padang, for Smyrna.—[Buston Commercial.]

[From the Pittsburgh Gazette.]
REMARKABLE.—Mr. Montgomery the jailor of the county handed us the following communication, which he says was written by one of the prisioners. The falling of the stone he sasures us, was witnessed by many, perhaps all the prisoners, some of whom are for debt, others charged with crimes He, himself, was in the county on that evening but he declares that he has no doubt of the truth o their story.—He says that he picked up muscles on

the next morning.

Remarkable Circumstance.—On Saturday evening, the 9th instant, about five o'clock, the southwestern hemisphere became suddenly overspread by heavy dark clouds, which indicated the fast approach of a storm, which was carried swiftly along by the angry wind, which was carried swiftly along by the angry wind, which smote the earth as though the very clements were it war with each other—soon the water began to gush from its cistern. During the extreme part of the rain, some of the prisoners in jail observed something falling, resembling the small stone that may be seen on the beach of a river—What first attracted attention was the ratting upon the bricks in the yard. When the storm had subsided, the prisonere not a little astonished as well as delighted, at finding that, not only the mactive stones were to removed from their native element, and were ready for gathering within the jail walls—the num-ber found is not accurately known, as some went im-mediately to work on the fresh dainty, opening, salt-ing and swallowing—until they were consumed: person, however, picked up ten before the re were informed that the yard abounded with mussels—some of them, from appearance, others were informed that the yard abounded when fresh mussels—some of them, from appearance, must have weighed two ounces; there were also several round stones found, one of which would weigh four or five ounces, and which may yet be ween—on the same evening, there were some frogs taken captive; whilst hopping about, apparrently ra-ther dissatisfied in finding themselves confined with-in the jail walls—the ancients cannot reccollect of such visitors making their appearance within the

alls before.

7. Montgomery (keeper of the prison) found one of the muscles outside of the wall. It is reseased that some of the learned would cast some fit upon this mystery, and solve to us how those migrants left their watery bome, sailed into the air, and landed inside the jair walls.

As Languer after Knowledge.

An Inquirer after Knowledge.

ved from statements such as that we now present.

Education in Buden .- I am now about to give the details of a well organized system of public instruc-tion in a state which may be looked upon as purely agricultural—a state where education is compulsory law, but where the law, without being s enforced by the government, is very generally respected by the people—I mean the Grand Duchy of pected by the people—I mean the Baden. By your permission, I will begin with a few statistical facts, which may afford data for calcula-tions in regard to England, relative to the object I

have in vie

The Grand Duchy of Baden contains about 5929 3.5 square miles of territory, with a population of about 1,220,000 inhabitunts, comprised in 110 cities and towns, 36 market towns, with 1,686 villages The price of beef and mutton, in almost all parts of the Grand Duchy, varies in the course of the year from 9 to 11 kreutzers, or from 3d to 3d 2.3; and the pount of the best wheaten flower is on an average 2d 2.3 in the three winter months. This calculation of prices has been made from places at the extremes of the Grand Duchy. The reigning family extremes of the Grand Duchy. The reigning family is Protestant, the people Protestant and Catholic, and the followers of both religions, with no apparent difference of feeling on the subject of education, show an equal degree of willingness in sending their chil liten to the schools.

The Catholic inhabitants, 814,000 in number, are instructed by 1,700 schoolmasters (of whom 300 are

assistants) in 1,294 elementary schools.

The Protestant part of the population, amounting to about 389,000 persons, are taught by 790 masters whom 200 are assistants) in 583 schools.

The rest of the population consists principally of lews, who fluctuate in point of number; but generin the Grand Duchy. ally maintain 28 schools

otal number of schools is 1,905.

In regard to the total number of children who fre uent these elementary schools, two distinct calcuquent these elementary schools, two distinct calculations have been made at my request, by persons on whom I can place the fullest reliance; and the difference of the results is anything but trifling; the one giving the total number as 170,000, the other 198,000; leaving a discrepancy to the amount of 28,000. This difference I believe to have originated, 1st. In the fact of that calculation, which makes the number appear so much greater, having been made at a later period after a slight increase of popula-lation. 2dly. In the fact of their being comprised therein the children of Jewish parents—and 3dly. In no allowance having been made for the children who absent themselves from school. I am inclined to believe, however, that the rate of the children who really attend the elementary schools relative to the number of inhabitants is as 1 to 7. The rate of the schools to the population is thus I to 641 inhabit nts, and to the total number of schools (though ome are always absent) the rate is 1 school to 103 scholars. There is one school also to 3 miles 3 27ths, and more than I to each considerable ham-

My Lord, this is a magnificent establishment nost magnificent, considering the extent, the degree of wealth, and the population of the land; nor the means for supporting this establishment less wor thy of notice and of admiration, although the people of Baden still feel that something remains to be done, and are anxionsly striving for its accomplishment. The funds for the support of the Volkschulen pro-ceed from three separate sources; and this arrangement, originating in the changes of times and cir-numstances, rather than in any uniform and synchronical plan, has been found to possess very consider able advantages, if there exist also some disadvan

1st. The Volkschulen, instituted, organized, and uperintended by the State, from the State likewise

derive that portion of the funds necessary for their support which is not supplied by other sources.

2d. Each individual parent whose child derives benefit from the institution, is called upon to contribute his part towards its maintenance.

duc this cer hole leas of t

al c

stai sch the hov

tion sing the Ch

die

les

eri

fac

en of

rig

ex ter

Ba wi

nu in

of be no fair an flo

ha fin roll of the cather the check of the cather the check of the cather the

pr 1(

We cannot refrain from asking public attention to the account which follows, of the means of education in a little German principality, which, though called the Grand Duchy of Baden, is not half as large as this State of New York.

It is taken from the London Courier, through which paper an intelligent writer is addressing a series of letters to Lord Althorp, recommending the German system of schools and instruction as models for England. Here our Common Schools much need improvement, and possibly useful hints may be deri

The amount paid by the parents, called schulgeld, is also very difficult to ascertain, as it varies in diffeis also very difficult to ascertain, as it varies in different years; but although the sum demanded for each individual in some parishes is not always the same as in others, it is always triffing in amount. It is, however, very generally believed throughout Geremany, that education, like other things, is not valued unless it be purchased, and consequently the system of schoolmoney is almost universally advocated by those who have a practical knowledge of the effects, although Nessau offers a brilliant example of the conalthough Nassau offers a brilliant example of the con-

although Nassau offers a brilliant example of the contrary system attempted with success.

In regard to the third source from which the school funds are derived in Baden, I must beg your Lordship's particular attention, as the multitude of old rights, laws, customs, foundations, and institutions, to meddle with which was dangerous, and to regulate which was difficult, rendered the introduction of any general system of education into Baden a much complicated and arduous enterprize, than it could prove in England; and yet the enterprize has en undertaken without hesitation, and executed with complete success. The third source of which I speak comprizes the following branches:—The revenues arising from various legacies and foundations (the destination of which has been uniformly respected, the State claiming merely the regulation of the schools, not any interference with appropriated funds), that portion of the revenue (whether paid in kind or in money) arising from church and school property which the custom assigns for the support of schoolmasters and school buildings; a certain portion of the tithes which must be considered as distinct from the church and school property of which I have spoken; a yearly distribution from the parishes; and last, the customary contribution of the *Herrschaft*, or of various Lords, possessing a seigneural property in the schools upon their lands, with various rights thereunto attached, which rights have ever been held inviolate, and which have seldom, if ever, been a-

The sum produced from all these sources is considerable, yet still insufficient to enable the state to establish a graduated scale of salary for the schoolmasters, beginning with 200 florins, or 16t. 1s. 4d. as the lowest, and ending with 500 florins, or 4tt. 16s. 4d. as the highest salaries for instructors in primary schools, which plan was strongly recommenthe report of the school commission in 1831.

In regard to the higher schools, of which 29 exist nd the Universities, which are two in number, shall not occupy your time, as the first are now un-dergoing a complete revision and alteration, and the latter could afford no example, though they might a warning, to Great Britain, especially in regard to the consequences of a want of scholastic discipline. Besides these, however, there exist in Baden five other excellent educational institutions, namely, a Polytechnic school, a deaf and damb school, a l school, and two distinct seminaries for Catholic and Protestant schoolmasters, each excellent in their system and organization, the Catholic containing

bout 112 scholars, the Protestant 50.

The organization of the educational establishment is xtremely simple. With the Minister of the Interior rests the principal moving power, while to the clergyie committed the general superintendence. The bishop, of course, is at the head of the clerical branch of the administration, but each large district has its deacon, whose especial office it is to superintend, direct, and govern the various schools within his department. Under him again, the immediate superintendence of the schools is confided to a committee of the parish council, presided by the clergyman of the place, whose duty it is, by constant visits and examinations, to make himself thoroughly acquainted with the state of the school, and the conduct of the school and the conduct of the school matter therein, to counsel, advise, and reprove him where therein, to counsel, advise, and reprove mis-necessary, and in cases where the master is either obstinate in error; or firm in opposition to the opinion of the clergyman, who has no power of compulsion; he question at issue between them is brought fir before the parish council, thence, if still uncerta-before the deacon, and ultimately before the gran

tem of Germany, more especially in a political and statistical light, yet I have not failed to visit the Volk-schulen, and to make myself acquainted with some of the details of instruction. The extent of instruction, however, is very various in different schools, achowever, is very various in different schools, according to the capability of the master, and the situation of the parish. Reading, writing, arithmetic, and singing, are taught in all the schools of Baden; and a thorough knowledge of the chief doctrines of the Christian Religion is invariably communicated in all Christian schools. Under a well instructed and judicious master, however, I have seen these branches of study carried far beyond their mere first principles, and that in a small school in a bad and poor situation. He had given to his scholars a very considerable knowledge of plain trigonometry; he bad made his lessons in reading a vehicle for conveying much general information, and his lessons in writing a means of improving the style and of exercising the thinking faculties of his pupils. Not only were the scholars thoroughly acquainted with biblical history, but most of them could point out the geographical position, and many statistical facts concerning the countries of which they spoke, and could reason clearly and rightly upon any simple proposition placed before rightly upon any simple proposition placed before them. This, however, is not always the case, and it is only by very strict attention to the education of the masters that such results can be hoped for-

Allow me now to call your Lordship's attention to a few facts of some importance, as bearing upon the expense which the establishment of a general system of education would draw upon England. The very best authority which I have consulted, states the gross revenues of the Protestant schoolmasters in Baden to be under 170,000 florins per annum, which, when divided amongst 790 masters, gives a salary of 215 and a fraction to each, or about £18 per an-num. The average rent, or interest of money sunk in schoolhouses, is computed at 60 florins or £5, and contingent expenses may be reckoned same sum of £5. Now, my Lord, I know this computation to be too high, and that a number of deductions have not been made in the calculation, which are made in not been made in the calculation, which are made in fact. However, let us make the amount still higher, and reckon the average salary of all masters at 250 florins, or £20. 18s. 2., which every one to whom I have spoken considers a high average, and we shall find that the gross expense of each school is, in round numbers, £31. Each school is supposed to educate 103 scholars, as I have shown by a previous calculation; so that we may look upon it as certain that in the Grand Duchy of Baden, 100 scholars can be turnished with good primary instruction for £31 er annum. In drawing any deductions in regard to ingland, we must remember two points of difference between Germany and our own country: let, in the price of provisions, and 2dly, in the national character. The second point of difference was call-ed to my notice by my admirable friend Dr. Schwartz, the father of German educationists, who proved to me that from the different habits and characters of the two nations, a greater pecuniary remuneration was necessary to induce an Englishman to devote himself to the task of a primary schoolmaster, than would be sufficient for a German.

The difference of prices between England and the Grand Duchy of Baden may be taken, on an average, at the rate of 3 to 2, as some articles are cheaper and others relatively dearer; which will raise the price of education to 461. 10s. for the education of 100 children in England; and even, after adding to the master's salary very nearly ten pounds per annum more, to hold out the greater inducement which I have mentioned, the amount may be taken at 551, per annum for the education of 100 children. I know not what may be the expense of the schools at present erected by the benevolent exertions of private individuals; but I am sure that under a general

ducal council for public instruction. In addition to this regular organization, each large district has a certain amount of inspectors, whose duty it is to hold a public examination of each primary school, at least once in the year, and to make a general report of the state of each to the Government.

The method of instruction, and the general discipline of the school, though very strictly laid down by law, still depends greatly upon the master; and I have had opportunities of accertaining that the moral condition of a whole parish hed been changed by the appointment of a good or bad schoolmaster, and his continued residence in the place. Were there space, some most striking instances of this fact might be given, showing the absolute necessity of what have been called Normal Schools, from the immense influence that primary schoolmasters exercise upon the moral condition of the people.

Although I have considered the educational system of Germany, more especially in a political and distinct that is all states where a well-organized system of education has been instituted, poverty and its considered the educational system of Germany. mense diminution of that tremendous burden the poor's rates, were such an educational institution established in England. I do not say that it would ex-tinguish them, for there must always be support pro-vided for the old, the sick, and the incapable of the poorer classes; but it would go far to reduce the poor rates to a name. Still it may be said the present expense would be a great burden on the finances of the state; but such is not the case. One half at least, or 5s. 6d. per annum for each scholar, might well be paid (and according to the best experimential opinions should be paid) by the parents of the children taught. From the 550,000l. remaining, a part must be deducted for the rent and repairs of the schoolhouses, which, beyond all doubt, should be maintained by the parishes which benefit by their institution; and to meet the remaining charge I need hardly point out to your Lordship, that there are al-ready very considerable funds appropriated for the purposes of education, which could be applied to this purpose, without any change of destination, or any infraction of rights. The sum thus demanded of the state need but be very small indeed.

> WHAT O'CLOCK IS IT?—When I was a young lad, my father one day called me to him that he might teach me how to know what o'clock it was. He told me the use of the minute finger and the hour hand, and described to me the figures on the disl plate, un-

> and described to me the figures on the dist plate, until I was pretty perfect in my part.
>
> No sooner was I quite master of this additional knowledge, than I set off scampering to join my companions at a game of marbles; but my father called me back again: "Stop, Humphrey," said he, "I have something more to tell you."
>
> Back again I went, wondering what else I had got to learn, for I thought I knew all about the clock, quite as well as my father did.
>
> "Humphrey," said he, "I have taught you to

"Humphrey," said he, "I have taught you to know the time of the day, I must now teach you how o find out the time of your life."

All this was strange to me, so I waited rather im-atiently to hear how my father would explain it, for

I wanted sadly to go to my marbles.

"The Bible," says he, "describes the years of man to be three score and ten, or four score years. Now life is very uncertain, and you may not live a single day longer; but if we divide the four score years of an old man's life into twelve parts, like the dial of a clock, it will allow almost seven years for every figure. When a boy is seven years old then it is one o'clock of his life, and this is the case with you; when you arrive at fourteen years it will be two o'clock with you; and when at twenty-one years, it will be two will be three o'clock, should it please God thus to spare your life. In this manner you may thus know the time of your life, and looking at the clock may, perhaps, remind you of it. My great grandfather, according to his calculation, died at twelve o'clock; my grandfather at eleven, and my father at o'clock; my grandfather at eleven, and my father at ten. At what hour you and I shall die, Hum-phrey, is only known to Him to whom all things are

Never since then have I heard the inquiry, "What o'clock it is?" nor do I think I have ever looked at the face of a clock, without being reminded of the words of my father.

I know not, my friends, what o'clock it is with you, but I know very well what time it is with myself; and that if I mean to do any thing in this world, which hitherto I have neglected, it is high world, which hitherto I have neglected, it is high time to set about it. The words of my father have given a solemnity to the dial plate of the clock, which it never would have possessed in my estima-tion, if these words had not been spoken. Look about you, my friends, I earnestly intreat you, and now and then ask yourself what o'clock it is with

We regret to hear that Miss READ, the y female in Brooklyn, whom we mentioned a few days ago as having been badly burnt by the bursting of a spirit lamp, has since died in consequence of the injury which she sustained from that cause.—[Courier.]

> THE MOTHER'S INJUNCTION. On presenting her Son with a Bible

REMEMBER, love, who gave thee this, When other days shall come, When she who had thy earliest kiss, Sleops in her narrow home; Remember 't was a mother gave The gift to one she 'd dis to sawe. The gift to one she'd die to caue.

That mother sought a plodge of love,
The holiest for her son;
And from the gifts of Gon above,
She chose a goodly one.
She chose a goodly one.
She chose a gift if the gift,
The Source of light, and life, and joy—
And bade him keep the gift,—that, whet
The parting hour would come,
They might have hope to meet again
In an eternal home.
She said his faith in that would be
Succet incense to her memory.
And should the scoffer, in his pride, She said his faith in that would be Spect incense to her memory.

And should the scoffer, in his pride, Laugh that fond faith to scorn, And bid him cast the pledge saide. That he from youth had borne; Ske bade him pause, and ask his breast, If he, or she, had loved him best. A parent's blessing on her son Gues with this holy thing;
The heart that would retain the one Must to the other cling.
Remember! 't is no idle toy—A mother's gift—Remember, boy!

FOLLY .- [From Blackwood's Mag szine]

THERE is folly in all the world,
Or go we east or west,
A folly that vexes the old, And keeps the young fre The miser has folly enough,
For his soul is in sordid hags,
And the spendthrift's folly, alas!
Brings him to sin and rags.

There is folly in statesmen's schemes, For, spite of their plotting and wit, There's a wiser hand above. That leads them with bridle and bit.

That leads them with bride and There's folly in power and pride, That makes full many to fall, There's folly in maiden's love, But that is the sweetest of all. But of all the follies, the worst—For it stings with constant smart The scorpion of the mind—Is that of a thankle meart.

For the thankless heart is cursed, And with blessings encompass'd grieves For it cannot rejoice with the hand That gives nor yet receives.

To be thankful makes better the good: And if Heaven should send us ill, There is kindness in him that gives— So let us be thanful still.

O let us be thankful in youth, And let us be thankful in age— And let us he thankful through life For there's pleasure in every sta

outh has its own sweet joys, And he must be blind as a bst, I he cafinet see love's sweet smi And will not be thankful for the

And will not be manked her that.
There are friends the dearest to cheer,
Ere nalf our sand is run—
And affection makes wistry days
As bright as the summer's sun.
And when from the dearest on earth
We part, let us hope 'tis given—
A bon to be thank'd for still—
To meet them again in heaven.

LA GITANILLA .- From the Songs of " Rookwood."

GITANILLA.—From the Songe of "
By the Guadalquivir,
Ere the sun be flown,
By that glorious river
Sits a maid alone.
Like the sunset aplondour
Of that current bright,
Shone her dark cyce, tender
As its witching light:
Like the ripple flowing,
Tinged with purp'a sheen,
Darkly, richly, glowing,
Is her wans cheek seen.
"Tis the Gitanilla,
By the stream doth linger,
In the hope that eve
Will her lover bring her.

Will her lover bring
See, the sun is sinking!
All grows dim, and dies;
See, the waves are drinking
Giories of the skies.
Day's last lustre präyeth
On thiat current dark;
Y et no speck beträyeth
His long-look of for bark.
Tis the bour of meeting!
Nay,—the hour is past.
Swift the time is fleeting!
Fleetich Hope as fast.
Built the Gitantila.
By the stream doth il th Hope and the Gitanilla. By the stream doth linger, a the hope that night To the Editor of the New York American :

The following original lines, intended to express the first ran feelings of paternity, are with diffidence offered for inser-, if deemed to possess sufficient merit to entitle them to a ter, in your journal.

TO MY FIRST-BORN

Less fondly to the trellia cling
The tendrils of the vine,
Than sheltered 'neath a parent's wing,
That parent's heart to thine.

A new and deeper chord of feelin Thy touch to wake had power, Unto my soul a bliss revealing Ne'er felt until that hour—

The hour when in a mother's arms, First bent my gaze on thee, And heightened second a mother's charms, Nurturing thy infancy.

anotions warm that brimmed my s Eureka I bade me cry; or I had won the latest goal Of happiness 'neath the sky.

RASSELAS

FOR SALE.

307 A second hand double cylinder NAPIER PRINTING MACHINE, that will work about two thousand sheets an hour in perfect order. It will be sold a bargain. Apply at this of fice.

A13 d&ctf

RAILEOAD AND CANAL MAP.

HIS long promised Map is now ready for those who wish. Its its is 4 by 40 inches. It is put up in a convenient pool ket form, in morocco covers, and accompanied by over 70 pages of latter press, giving a concise description of, or reference to, each Road and Canal delineated on the Map. It will also be put up in Marble Paper covers, to as to be forwarded by mail to any part of the country; the postage of which, cannot exceed 44, and probably not 25 cents, to any part of the county.

Published at 33 Wall street, N. Y, by

All If

RAILROAD IRON, &c.

RAILROAD IRON, &c.

Soft Scaled proposals will be received until the 15th day of September next, for the 'mmediate delivery thereafter at Suffolk, Va., of 250 tons of Railroad Iron in bars from 14 to 18 f. et in length—2 inches wide by half an lach thick—plerced with countersuak holes 2ths of an inch in diameter, 1 font or 13 inches apart from centre to centre; and for 16 tons of Spikes 4 inches long end 4ths of an inch in diameter. Specimens of the latter, and drawings of the rail showing the size and shape of the hole, shape of the rail, and angle of the scarf, will accompany each bid.

WALTER GWYNN, Civil Engineer.

Engineer's Office, Portomouth & R. R. R. }

Suffolk, Va., August 18.

TO RAILROAD COMPANIES.

TO RAILROAD COMPANIES,

327 The subscriber having erected extensive machinery for the manufacture of the Iron Work for Railroad Cars, and having made arrangements with Mr. Phiehas Davis, patentee of the celebrat d wire drilled wheels, will enable him to fit up at short notice any number of cars which may be wanted.

The superiority of the above Wheels has been fully tested on the Baltimore and Ohio Railroad, where they have been in constant use for some mouths past. Having fitted up Wheels for six hundred Cars, the subscriber flatters himself that he can execute orders in the above line to the satisfaction of persons a squiring such work. The location of the shop being on the tide-waters of the Chesapeake Bay, will enable him to ship the work to any of the Atlantic ports, on as reasonable terms as can be offered by any person. All orders will be executed with despatch, and the work warranted. When there are but a few setts wasted, the chills and patterns are to be furnished, or the company pay the expense of making the same, and if required, will be sent with the wheels. All Wheels furnished and litted by the subscriber will have no extra charge on account of the patent right.

Samales of the above Wheels, which have been broken to

will be sent with the shave no extra charge on account by the subscriber will have no extra charge on account plate. Samples of the above Wheels, which have been broken to show their superbrity, may be seen at the office of the Railroad Journa'; at the Depot of the Boston and Providence Railroad, Boston; and at John Arnold's shop, near the Broad street House, Philadelphia. All orders directed to W. & E. PAT TERSON, Baltimore, or to the subscriber, Joppa Mills, Little Guapowder Post-Office, Baltimore county, Mayland, will be attended to.

-	Ninety-fiv	e tons o	I I inch by	4 inch.	lengtheot 14:015
-	200		14 do.		feet counter sunk
	40	do.	14 do.	do.	holes, ends cut at
	800	. do.	2 do.	do.	an angle of 45 de-
	800	do.	2} do.	do.	grees with spli-
				cing plates, naile	
5	-	34		The second	to suit.

airs, keys and pins. Wrought Iron Rims of 30, 33, and 36 inches diameter of Railway Cars, and of 60 inches diameter of the state of the

ve wheels, 12, 21, 3, 31, 31, and 31 inches diameter for Rail Cars and Locomotives of patent from sabove will be sold free of duty, to State Governments, and the Drawback taken in payment.

9 South Front street, Philadelphia.
dels and samples of all the different kinds of Raile, Chairs, Wedges, Spikes, and Splicing Plates, in use, both in this

Town send to Durfee, of Paimyra, Manu acturers of Railroad Rope, having removed their establishment to Hudson, under the rame of Durfee, May & Co. offer to upply Rope of any required length (without splice) for inhem in any of the principal cities in the United States. As to the quality of Rope, the public are referred to J. B. Jervis, End. & H. R. R. Co., Albany; or James Archibald, Engineer Indeen and Delaware Canal and Railroad Company, Carbon, indeed, Luzerne county, Pennsylvania.

Mudson, Columbia county, New-York, A. January 20, 1838.

LOCOMOTIVE ENGINES

TOCOMOTIVE ENGINES.

37 THE AMERICAN STEAM CARRIAGECOMPANY,
OF PHILADELPHIA, respectfully inform the public, and es
pecially Railroad and Transportation Companies, that they
have become sole proprietors of certain improvements in the
construction of Locomotive Engines. and other railway car
riages, secured to Col. Stephen H. Long, of the United States
Engineers, by letters patent from the United States, and that
they are prepared to execute any orders for the construction of
Locomotive Engines, Tenders, &c. with which they may be
favored, and pledge themselves to a punctual compliance with
any engagements they may make in reference to this line of
business.

business.

They have already in their possession the requisite appara us for the construction of three classes of engines, viz. engines weighing four, five, and six tons.

The engines made by them will be warranted to travel at the following rates of speed, viz. a six ton engine at a speed of 15 miles per hour; a five ton engine at a speed of 22 12 miles per hour. Their performance in other respects will be warranted to equal that of the best English engines of the same class, with respect not only to their efficiency in the conveyance of burthens, but to their durability, and the cheapness and facility of their repairs.

airs.

The engines will be adapted to the use of anthracite coal ne wood, coke, or any other fuel hitherto used in locomotive.

engines.

The terms shall be quite as favorable, and even more mode rate, than those on which ergines of the same class can be procured from aboad.

All orders for engines, &c. and other communications in reference to the subject, will be addressed to the subscriber, in the city of Philadelphia, and shall receive prompt attention.

By order of the Company,

WILLIAM NORRIS, Secretary.

December,2d, 1833. Fr further information on this subject see No. 49, page 772, Vol 2, of Railroad Journal.

772, Vol 2, of Railroad Journal,

NOTICE TO MANUFACTUREIRS.

L'S SIMON FAIRMAN, of the village of Lansingburgh, in he county of itenseslaer, and state of New-York, has invented and put in operation a Machine for making Wrought Nailwith square points. This machine will make about sixty 6d nails, and about forty 10d nails in a minute, and in the same proportion larger sizes, even to spikes for shine. The nail is nammered and comes from the machine completely heated to reduces, that its capacity for being clenthed is good and sure One horse power is sufficient to drive one machine, and may easily be applied where such power for driving machinery is inoperation. Said Fairman will make, yound and warrant machines as above, to any persons who may apply for them as soon as they may be ma le, and on the most rea onable torms. He also desires to sell one half of his patent right for the use of said machines throughout the United States. Any person desiring farther information, or to purchase, will please to call at the machine shop of Mr. John Humphrey, in the village of Laningburgh.—August 15, 1833.

Aggif RM&F

SURVEYORS' INSTRUMENTS.

SURVEYORS' INSTRUMENTS.
To Compasses of various sizes and of superior quality arranted.

warranted.
Leveling Instruments, large and small sizes, with high mag-nifying powers with glasses made by Troughton, together with a large assortment of Engineering Instruments, manufacturee and sold by E. & G. W. BLUNT, 154 Water street, corner of Maldeniane.

J31 4! corner of Maideniane.

SURVEYING AND ENGINEERING
INSTRUMENTS.

27 The subscriber manufactures all kinds of instruments in his profession, warranted equal, if not superior, in grinciples of construction and workmanship to any imported or manufactured in the United States; several of which are entirely nete: among which are an improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy—also, a Railroad Goulometer, with two Telescopes—and a Levelling instrument, with a Goniometer attached, particularly a lapted to Railroad purposes.

Mathematical Instrument Maker, No. 9 Dock street, Philadelphia.
The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested.

Baltimore, 1832.

In reply to thy inquiries respecting the instruments manu-

In reply to thy inquiries respecting the instruments manufactured by thee, now in use or the Baltimore and Ohio Railroad. I cheerfully furnish thee with the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repairs, except from accidents to which all instruments of the kind are liable.

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any other in use, and the Improved Compass is superior to any other decription of Goniometer that we have yet tried in laying the rails on this Road.

in use, and the improved conservation of Goniometer that we have yet tried in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vane sights, leaves the engineer scarcely any thing to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to later al angles of any-simple and cheay instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully the friend,
JAMES F. STABLER, Superintendant of Construction of Baltimore and Ohio Railroad.

Philadelphia, February, 1833.

Having for the last two years made constant use of Mr Young's "Patent Improved Compass," I can safely say I be lieve it to be much superior to any other instrument of the kind, now in use, and as such most cheerfully recommend it to Engineers and Surveyors.

E. H. Gill, Civil Engineer.

Germantown, February, 1833.

For a year past I have used instruments made by Mr. W.J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these Instruments admirably calculated for layin out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.

HENRY R. CAMPBELL, Eng. Philadi, ml 1y

Germant, and Norrist. Railroad

STEPHENSON.

Builder of a superior style of Passenger Cars for Railros No. 264 Elizabethstreet, near Bleecker street,

New-York.

17 RAILROAD COMPANIES would do well to examin these Cars; a specimen of which may be seen on that part of the New-York and Harliem Railroad, now in operation.

J 25 tf

RAILROAD CAR WHEELS AND BOXES, AND OTHER RAILROAD CASTINGS.

Also, AXLES furnished and fitted to wheels complete at the Jefferson Cotton and Wool Machine Factory and Foundry. Paterson, N.J. All orders addressed to the subscribers at Paterson, or 60 Wall street, New York, will be promptly at tended to. Also, CAR SPRINGS.

Also, Flange Tires turaed complete.

ROGERS, KETCHUM & GROSVENOR.

NOVELTY WORKS,

Near Dry Dock, New-York

THOMAS B. STILLMAN, Manufacturer of Steam Engines, Boilers, Railroad and Mill Work, Lathes, Presses, and other Machinery. Also, Dr. Nott's Patent Tubular Boilers, which are warrunted, for safety and economy, to be superior to any thing of the kind heretofore used. The fullest assurance is given that work shall be done well, and on reasonable terms. A share of public patronage is respectfully solicited.

m18



INSTRUMENTS.

MANUFACTORY.

To EWIN & HEARTTE, at the sign of the Quadrant, No. 33 South street, one door north of the Union Hotel, Baltimore, beg leave to inform their friends and the public, especially Engineers, that they continue to manufacture to order and keep for sale every description of Instruments in the above branches, which they can furrish a the shortest notice, and on fair terms. Instruments repaired (with care and promptitude. For proof of the high estimation on which their Surveying Instruments are held, they respectfully beg leave to tender to the public perusal, the following certificates from gentlemen of distinguished scientific attainments.

To Ewin & Heattie—Agreeably to your request made some

the public perusal, the following certificates from gentlemen of distinguished scientific attainments.

To Ewin & Heartte.—Agrecably to your request made some months since. I now offer you my opinion of the Instruments made at your establishment, for the Baltimore and Ohio Railroad Company. This opinion would have been given at a much earlier periou, but was intentionalled the leaved, in order to afford a longer time for the trial of the Lestruments, so that I could speak with the greater confidence of their merits, if such they should be found to possess.

It is with much pleasure I can now state that notwithstanding the Instruments in the service procured from our northern civies are considered good, I have a decided preference for those manufactured by you. Of the whole number manufactured for the Department of Construction, to wit: five Levels, and five of the Compasses, not one has required any repairs within the last twelve months, except from the occasional imperfection of a screw, or from accidents, to which all Instruments are liable. They possess a firmness and stability, and at the same time a neatness and beauty of execution, which reflect much credit on the artista engaged in their construction.

I can with confidence recommend them as being worthy the notice of Companies engaged in Internal Improvements, who may require Instruments of superior workmanship.

JAMES P. STABLER,

Superintendent of Construction of the Baltimore and Ohio Railroad.

I have examined with care several Engineers instruments of superintendents of construction of the Baltimore and Ohio Railroad.

I have examined with care several Engineers' instruments of your Manufacture, naticularly Spirit levels, and 2 urveyor's Compasses; and take pleasure in expressing my opinion of the excellence of the work manship. The parts of the levels appeared well proportioned to secure facility in use, and accuracy and permanency in adjustments.

These instruments seemed to me to possess all the moders improvement of construction, of which so many have been made within these few years; and I have no doubt but they will give every satisfaction when used in the field.

WILLIAM HOWARD, U.S. Civil Engineer.

Baltimore. May 1st. 1833.

WILLIAM HOWARD, U. S. Civil Engineer.

Baltimore, May 1st, 1933.

To Messra Ewin and Heartte—As you have asked me to give my opinion of the merits of those instruments of your manutacture which I have either used or examined, I cheerfully state that as far as my opportunities of my becoming aquainted with their qualities have gone, I have great reason to think well of the skill displayed in their construction. The neatness of their workmanship has been the subject of frequent remark by my self, and of the accuracy of their performance I have received satisfactory assurance from others, whose opinion I respect, and who have had then for a considerable time in use. The efforts you have made since your establishment in this city, to relieve us of the necessity of sending elsewhere for what we may want in our line, deserve the unqualified approbation and our warm encouragement. Wishing you all the success which your enterprize so well merits, I remain, yours, &c.

E. H. LATROBE, road Company.

A number of other letters are in our

A number of other letters are in our possession and might be ntroduced, but are too lengthy. We should be happy 10 under the number of the lengthy with the length of the ng the same.